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Annotated checklist of eels (orders Anguilliformes and Saccopharyngiformes) from Taiwan

HSUAN-CHING HO^{1,2}, DAVID G. SMITH³, JOHN E. MCCOSKER⁴, YUSUKE HIBINO⁵, KAR-HOE LOH⁶, KENNETH A. TIGHE³ & KWANG-TSAO SHAO^{7,*}

¹National Museum of Marine Biology & Aquarium, Pingtung, Taiwan

²Institute of Marine Biology, National Dong Hwa University, Pingtung, Taiwan

³Smithsonian Institution, Museum Support Center, Suitland, MD, U.S.A.

⁴California Academy of Sciences, San Francisco, U.S.A.

⁵Fisheries Research Laboratory, Mie University, Mie, Japan

⁶Institute of Ocean and Earth Sciences, University of Malaya, Malaysia

⁷Biodiversity Research Center, Academia Sinica, Taipei, Taiwan

*Corresponding author. E-mail:zoskt@gate.sinica.edu.tw

Abstract

An annotated checklist of eels, orders Anguilliformes and Saccopharyngiformes, occurring in Taiwanese waters is presented. The checklist is the result of a series of systematic studies conducted by the authors in the past few years. The eel fauna of Taiwan is one of the richest in the world with a total of 206 species in 74 genera and 13 families in Anguilliformes and a single species in Saccopharyngiformes. The most species-rich families are the Muraenidae with 71 species, followed by the Ophichthidae with 60 species, the Congridae with 29 species, and the Synaphobranchidae with 17 species. Moreover, three genera and 42 species have been described based on at least one type specimen collected from Taiwan. Of these, 36 species are recognized as valid and 23 species are known only from Taiwanese waters at present. Historical records of all Taiwanese eel species are reviewed by examining the original descriptions and figures, vouchers, as well as the recently collected specimens, where available. This represents the first detailed checklist of eels from Taiwanese waters.

Key words: Taxonomy, elopomorpha, Anguilliformes, Saccopharyngiformes, Taiwan

Introduction

Taiwan has a rich and diverse fish fauna. The island is located on the Tropic of Cancer, resulting in a unique mixture of tropical and temperate species. The fishes of Taiwan have been studied over the years by many ichthyologists, both foreign and domestic. The history of ichthyology in Taiwan was summarized by Ho & Shao (2011), and that of taxonomy of anguilliform eels is summarized in the present special issue (Ho *et al.*, 2015a).

The first assessment of the eel fauna of Taiwan was compiled by Chen & Weng (1967), who recognized 10 families with 65 species, and included four newly described species. Chen & Yu (1986) increased the number to 87 species and in a comprehensive book "*Fishes of Taiwan*", Shen *et al.* (1993) recognized 9 families and 108 species. In the past two decades, 17 eel species were described from Taiwan (Ho & Shao, 2011; Ho *et al.*, 2015a). The Taiwan Fish Database (Shao, 2015) currently lists 13 families with 168 species of eels. However, many taxonomic problems remain and many groups need further study. Among these groups are the eels of the order Anguilliformes.

During the course of their systematic studies on the eels of Taiwan, the contributors to this volume examined many specimens previously collected and deposited in fish collections in Taiwan and elsewhere. They also made new collections from around the island and exchanged information on the taxonomic results. As a result, many new species were discovered and many previously described species were recorded from Taiwan for the first time (McCosker *et al.*, 2009, 2012; Hibino *et al.*, 2012; Ho *et al.*, 2013); more are waiting to be described.

The main purpose of present work is to provide a detailed checklist that includes all known species in Taiwan and their current status and to provide a solid foundation for future studies.

Methods and materials

The checklist is arranged alphabetically by family, then by genera and by species. The new species described from Taiwan are marked * (including those in the synonymies) and species newly recorded in this volume are marked +. Voucher specimens are provided if a new record is not mentioned in other sources.

Following the scientific name, a common name in Chinese and ‘local’ synonymies are provided for all Taiwanese taxa, unless otherwise indicated. The first author who reported a particular species from Taiwan is underlined in the synonymies.

Current status follows the studies made by the authors in the present issue or those listed in *Catalog of Fishes* (Eschmeyer, 2015), unless otherwise indicated. A Remarks section includes ecological notes, field observations, taxonomic history, nomenclature or systematics is provided, if applicable. The new genera and species described in this volume are presented here in the checklist. Several of the species groups are still under investigation and their taxonomic status may change in the future.

Institutional acronyms follow Eschmeyer (2015). The geographic coordinates for localities can be found in Ebert *et al.* (2013:table 5, fig. 1).

Results

Two hundred and six species in 13 families and 74 genera of the order Anguilliformes and one species in one family and one genus of the order Saccopharyngiformes are recognized in this work, which gathers together all information from previous references and our recent study results. Of these, 71 species belong to the Muraenidae, 60 to the Ophichthidae, 29 to the Congridae and 17 to the Synaphobranchidae which represent the most species rich families in Taiwan waters.

Three new genera and 42 species have been described from Taiwan, of which 36 species are valid and 23 of them are currently only found in Taiwan. There are also 1 family and 29 new species records added to the Taiwanese fauna. Moreover, we recognized at least nine undescribed species which are not included in this checklist.

Annotated checklist of eels of Taiwan

Order Anguilliformes

鰻形目

Family Anguillidae

鰻科

Anguilla bicolor pacifica Schmidt, 1928

太平洋雙色鰻

Anguilla pacifica Schmidt, 1928:190, 206 (Type locality: Pacific, north of the equator).

Anguilla bicolor pacifica Schmidt, 1928: Tseng & Tabeta, 1983:28; Chen & Yu, 1986:242; Lin, 2007:86; Chen, 2009:4; Chou & Kao, 2011:33; Chang *et al.*, 2011:1; Chang *et al.*, 2013:44.

Anguilla bicolor McClelland, 1844: Shen, 1984a:103.

Remarks. Chen (2009) notes that this species is mainly collected from fresh waters of eastern Taiwan.

***Anguilla celebesensis* Kaup, 1856**

西里伯斯鰻

Anguilla celebesensis Kaup, 1856b:42 (type locality: Lake Tondano, Sulawesi, Indonesia). Tseng, 1982:59; Chang *et al.*, 2011:1; Chen *et al.*, 2012:1; Chang *et al.*, 2013:44.

Remarks. Tseng (1982) first recorded this species based on juveniles. Although there are other records of this species, no adults have been formally recorded. Chen *et al.* (2012) noted that some juveniles of this species may have been included with *Anguilla luzonensis*, a recently described species. Chang *et al.* (2013) confirmed that this species, also based on juveniles, is present in Taiwanese waters.

***Anguilla japonica* Temminck & Schlegel, 1846**

日本鰻

Anguilla japonica Temminck & Schlegel, 1846:258 (type locality: Japan). Oshima, 1919:263; Chen, 1956:73; Liaw, 1960:4; Chen & Weng, 1967:5; Chen, 1969:124; Shen, 1984a:103; Chen & Yu, 1986:242; Shen *et al.*, 1993:97, fig. 14-5; Shao *et al.*, 1994a:273; Chen & Fang, 1999:51; Chen, 2004:26; Lin, 2007:82; Chen, 2009:6; Ho *et al.*, 2010:table 1; Chou & Kao, 2011:34; Ho & Shao, 2011:21, table 1; Chang *et al.*, 2011:1; Chang *et al.*, 2013:44.

Anguilla bostoniensis (not of Lesueur, 1817):?Günther, 1870:31.

**Anguilla remifera* Jordan & Evermann, 1902:325, fig. 7 (type locality: Taiwan). Jordan & Richardson, 1909:171, fig. 8.

Anguilla sinensis McClelland, 1843: Chen, 1956:73.

Muraena japonica (Temminck & Schlegel, 1846): Fowler, 1932a:49, fig. 1.

Remarks. Günther (1870) recorded *Anguilla bostoniensis* based on several half-grown specimens collected from Taiwan, but their identities are not verified since whereabouts of these specimens are unknown.

***Anguilla luzonensis* Watanabe, Aoyama & Tsukamoto, 2009**

呂宋鰻

Anguilla luzonensis Watanabe, Aoyama & Tsukamoto, 2009:389 (type locality: north Luzon Island, Philippines). Chen *et al.*, 2012:68; Chang *et al.*, 2013:44.

Remarks. Chen *et al.* (2012) noted that adults of this species were collected from Lan-yu Island and juveniles were collected in northeastern and southwestern Taiwan. Chang *et al.* (2013) reported that juveniles occur in Taiwan, although no adults were collected.

***Anguilla marmorata* Quoy & Gaimard, 1824**

鱸鰻

Anguilla marmorata Quoy & Gaimard, 1824:241 (type locality: Waigeo, Indonesia). Chen, 1956:73; Chen & Weng, 1967:4; Chen, 1969:124; Shen, 1984a:103; Chen & Yu, 1986:242; Shen *et al.*, 1993:97, fig. 14-6; Chen & Fang, 1999:52; Lin, 2007:84; Chen, 2009:8; Ho *et al.*, 2010:table 1; Chou & Kao, 2011:35; Chang *et al.*, 2011:1.

Anguilla mauritiana Bennett, 1831: Jordan & Evermann, 1902:325; Oshima, 1919:262.

Anguilla manillensis (Bleeker, 1864a): Jordan & Richardson, 1909:171.

Remarks. This is the most widely distributed species of *Anguilla*, occurring from East Africa to French Polynesia, and from Papua New Guinea to southern Japan.

Family Chlopsidae

草鰻科

****Chlopsis nanhaiensis* Tighe, Ho, Pogonoski & Hibino, 2015**

南海草鰻

Chlopsis nanhaiensis Tighe, Ho, Pogonoski & Hibino in Tighe et al., 2015:22, figs. 4–7 (type locality: Dong-gang, southwestern Taiwan).

Remarks. This is a rare species known from the two type specimens collected by bottom trawl off southwestern Taiwan.

***Chilorhinus platyrhynchus* (Norman, 1922)**

扁吻草鰻

Brachyconger platyrhynchus Norman, 1922:218 (type locality: New Britain Island, Bismarck Archipelago [Papua New Guinea, western Pacific]).

Chilorhinus platyrhynchus (Norman, 1922): Shao et al., 2008:237.

Remarks. This is a rare species represented by a few specimens collected by bottom trawl from southwestern Taiwan and two catalog records (three specimens total) in the USNM collection collected by rotenone off southern Taiwan.

+*Kaupichthys japonicus* Matsubara & Asano, 1959

日本眶鼻鰻

Kaupichthys diodontus japonicus Matsubara & Asano, 1959:293, figs. 1, 2A–B (type locality: Near Kametsu, Tokunoshima, Amami Islands, Japan).

Kaupichthys hyoprorooides (not of Strömmann, 1896): Shao et al., 2008:237.

Kaupichthys diodontus (not of Schultz, 1943): Chen & Yu, 1986:255.

Voucher specimens: ASIZP 54931 (Heng-chun, Pingtung). Also represented by ten catalog records (41 specimens total) in the USNM collection collected by rotenone off southern Taiwan.

Remarks. Previous Taiwanese records of *K. hyoprorooides* and *K. diodontus* represent misidentifications of *K. japonicus* and are not valid. The only voucher present in Taiwan is reidentified as the present species. It is notable that there are four rows (two on each side) of blunt teeth on the vomer, whereas the original description described only two, one on each side. However, one of us (KAT) has observed a number of specimens of *Kaupichthys* that have two rows of teeth on each side of the vomer.

Family Colocongridae

短康吉鰻科

***Coloconger japonicus* Machida, 1984**

日本短康吉鰻

Coloconger japonicus Machida in Okamura & Kitajima, 1984:87 (type locality: Okinawa Trough, 750–760 meters). Shao et al., 2008:239.

Remarks. This is a rare species represented by only two specimens collected in southwestern Taiwan.

+*Coloconger raniceps* Alcock, 1889

蛙頭短康吉鰻

Coloconger raniceps Alcock, 1889:456 (Type locality: Andaman Sea off Ross Island).

Voucher specimen: ASIZP 63790 (SW Taiwan).

Remarks. This is a new record for Taiwan and it is represented by a single specimen collected in southwestern Taiwan at 821 m.

Family Congridae

康吉鰻科

***Ariosoma anago* (Temminck & Schlegel, 1846)**

白錐體糯鰻

Conger anago Temminck & Schlegel, 1846:259 (type locality: Nagasaki, Japan).

Leptocephalus anagoides (not of Bleeker, 1854): Jordan & Richardson, 1909:171.

Alloconger anagoides (not of Bleeker, 1854): Chu, 1957:14; Lee & Yang, 1966:54, fig. 2; ?Chen & Weng, 1967:45; Chen, 1969:132; Chen & Yu, 1986:252; Shen et al., 1993:115; Shao et al., 1994a:274.

Ariosoma anago (Temminck & Schlegel, 1846): Shao et al., 2008:239.

Remarks. There has been considerable confusion over this name in the past. The species treated as *Anago* [=*Ariosoma*] *anago* by Asano (1962) is in fact *Ariosoma meeki* (Jordan & Snyder, 1901); the true *A. anago* was treated by Asano as *Ariosoma anagoides* (Bleeker, 1852). Most subsequent authors followed Asano. Previous records of *Ariosoma anago* from Taiwan are reidentified by us as *A. meeki*, and records of *A. anagoides* are reidentified as *A. anago*. Known from Japan and Taiwan; southern limit of distribution uncertain.

***Ariosoma fasciatum* (Günther, 1872)**

條紋錐體糯鰻

Poeciloconger fasciatus Günther, 1872a:673 (type locality: Manado, Sulawesi, Indonesia).

**Ariosoma nancyae* Shen, 1998:10, figs. 3A-B, 5C, 6C (type locality: Nan-fang-ao fish market, northeastern Taiwan).

Ariosoma fasciatum (Günther, 1872a): Ho & Shao, 2011:23, table 1.

Remarks. This is a rare species collected by hook and line off eastern Taiwan. The head pore pattern is not typical of *Ariosoma* and further investigation is needed to determine its generic status.

***Ariosoma major* (Asano, 1958)**

大錐體糯鰻

Alloconger shiroanago major Asano, 1958:191 (off Shibushi, Kagoshima Prefecture, Japan). Lee & Yang, 1966:55, fig. 3.

Alloconger major Asano, 1958: Chen & Weng, 1967:47; Chen, 1969:132; Shen 1984a:112; Chen & Yu, 1986:252; Shao et al., 2008:239.

Ariosoma shiroanago major (Asano, 1958): Shen, 1998:10.

Ariosoma major (Asano, 1958): Ho et al., 2010:table 1.

Remarks. This is a common species collected by bottom trawl around Taiwan.

***Ariosoma meeki* (Jordan & Snyder, 1900)**

米氏錐體糯鰻

Congrellus meeki Jordan & Snyder, 1900:347 (type locality: Tokyo Bay, Japan).

Anago anago (non Temminck & Schlegel, 1846): Chu, 1957:15; Lee & Yang, 1966:53, fig. 1; Chen & Weng, 1967:43; Lee, 1967:44; Chen, 1969:132; Shen 1984a:112; Chen & Yu, 1986:252; Shen, 1988:15; Shao et al., 1994a:274.

Ariosoma anago (non Temminck & Schlegel, 1846): Chen, 1956:76; Liang & Yeh, 1964:8; Shen, 1998:8.

Ariosoma meeki (Jordan & Snyder, 1900): Chen, 2004:31; Shao et al., 2008:239.

Remarks. This species was referred to *Anago anago* in most previous works. It is the most abundant *Ariosoma* species in bottom trawl catches in Taiwan.

+*Ariosoma shiroanago* (Asano, 1958)

銀錐體糯鰻

Alloconger shiroanago shiroanago Asano, 1958:193 (type locality: off Owashi, Mie Prefecture, Japan).

Voucher specimen: NMMB-P17984 (Dong-gang).

Remarks. This is a new record for Taiwan. It is rare and only represented by a few specimens from Taiwan.

+*Bathycongrus guttulatus* (Günther, 1887)

小斑深海糯鰻

Congromuraena guttulata Günther, 1887:252 (type locality: off Matuku, Fiji Islands).

Voucher specimens: USNM 401083 (Dong-gang); NMMB-P 4041 (Dong-gang).

Remarks. This is a new record for Taiwan. It is a rare species collected by bottom trawl off southwestern Taiwan.

***Bathycongrus retrotinctus* (Jordan & Snyder, 1901)**

網格深海糯鰻

Leptocephalus retrotinctus Jordan & Snyder, 1901:853 (type locality: Tokyo fish market, Japan).

Congrina retrotincta (Jordan & Snyder, 1901): Lee & Yang, 1966:59, fig. 8; Chen & Weng, 1967:55; Chen, 1969:132; Shen 1984a:113; Chen & Yu, 1986:253.

Bathycongrus retrotinctus (Jordan & Snyder, 1901): Shao *et al.*, 2008:239.

Remarks. This is a common species collected by bottom trawl off northeastern and southwestern Taiwan, though not as abundant as *B. wallacei*.

+*Bathycongrus wallacei* (Castle, 1968)

瓦氏深海糯鰻

Congrina wallacei Castle, 1968:709 (type locality: off the mouth of Limpopo River, Mozambique, 480–500 m).

Voucher specimens: Many specimens in ASIZP and NMMB-P.

Remarks. Previously recorded from Japan and the western Indian Ocean (Castle & Smith, 1999), this is a new record for Taiwan. It is a very common species collected by bottom trawl off northeastern and southwestern Taiwan.

***Bathymyrus simus* Smith, 1965**

銼吻淵油鰻

Bathymyrus simus Smith, 1965:8, fig. 1B, pl. 1 (type locality: Vietnam). Chen & Weng, 1967:43; Chen, 1969:130; Shen 1984a:111; Chen & Yu, 1986:252; Shen *et al.*, 1993:116; Shao *et al.*, 2008:239; Chen, 2004:31; Ho *et al.*, 2010:table 1.

Remarks. This is a rare species only found off southwestern Taiwan.

+*Bathyuroconger parvibranchialis* (Fowler, 1934)

小鰓深海尾糯鰻

Silvesterina parvibranchialis Fowler, 1934:275, fig. 35 (type locality: Butung [Buton] Strait, Philippines, 5°35'00"S, 122°20'00"E, 559 fathoms [1022 m]).

Bathyuroconger parvibranchialis (Fowler, 1934): Smith, 1999b:1686.

Voucher specimens: ASIZP 63789 (SW Taiwan); ASIZP 63794 (SW Taiwan); ASIZP 66181 (SW Taiwan).

Remarks. Recent studies by DGS indicate that the type material of this species actually contains two species. Further studies are needed to determine which of these occurs in Taiwan. They are characterized by their small gill opening. Also reported from Japan (F. Tashiro, pers. comm.).

***Bathyuroconger vicinus* (Vaillant, 1888)**

深海尾糯鰻

Uroconger vicinus Vaillant, 1888:86, pl. 6, fig. 1 (Coasts of Soudan, Arguin Bank, and Cape Verde Islands, 932–1633 m).
Bathyuroconger vicinus (Vaillant, 1888): Shao *et al.*, 2008:239.

Remarks. As currently recognized, this species occurs worldwide. It is collected occasionally from deep waters by bottom trawl off northeastern Taiwan.

***Blachea xenobranchialis* Karrer & Smith, 1980**

奇鰓鰻

Blachea xenobranchialis Karrer & Smith, 1980:643, figs. 1–6 (type locality: Mozambique Channel, 12°43'S, 48°15'E, 348–360 m). Ho & Shao, 2010:286.

Remarks. This is a rare species represented by one specimen from Taiwan and a few additional specimens from elsewhere in the Indo-Pacific.

***Conger cinereus* Rüppell, 1871**

灰糯鰻

Conger cinereus Rüppell in Klunzinger 1871:607 (type locality: Red Sea). Chen & Weng, 1967:50; Chen, 1969:132; Shen 1984a:112; Chen & Yu, 1986:252; Shen *et al.*, 1993:116; Shao *et al.*, 2008:239.

Conger wilsoni (not of Bloch & Schneider, 1801): ?Chen, 2004:32.

Remarks. This is a common species in coral reef habitats.

+*Conger jordani* Kanazawa, 1958

喬氏糯鰻

Conger jordani Kanazawa, 1958:250, fig. 4 (type locality: Misaki, Kanagawa Prefecture, Japan)

Voucher specimens: ASIZP 62593 (Daxi).

Remarks. This is a common species in Taiwan. Previous records of *C. japonicus* may refer to this species.

+*Conger macrocephalus* Kanazawa, 1958

大頭糯鰻

Conger macrocephalus Kanazawa, 1958:254, pl. 1, fig. M (Verde Island passage, Luzon Island, Philippines, 13°34'37"N, 121°07'30"E, ca. 180 fathoms [329 m]).

Conger japonicus (not of Bleeker, 1879): ?Chen & Weng, 1967:49; ?Chen, 1969: 132; ?Shen 1984a:112; ?Shen, 1988:15; ?Shen *et al.*, 1993:116; ?Chen, 2004:32; ?Ho *et al.*, 2010:table 1.

Conger wilsoni (not of Bloch & Schneider, 1801): ?Chen & Yu, 1986:252.

Conger conger (not of Linnaeus, 1758): ?Lee & Yang, 1966:56, fig. 5.

Voucher specimens: Many in ASIZP, NMMP-P and USNM.

Remarks. This is a new record for Taiwan. This species appears to be common in deep waters around Taiwan and is mainly collected by bottom trawl. Many specimens in collections were previously mis-identified as *C. japonicus*.

***Conger myriaster* (Brevoort, 1856)**

繁星糯鰻

Anguilla myriaster Brevoort, 1856:282, pl. 11, fig. 2 (type locality: Hakodate, Hokkaido, Japan).

Conger myriaster (Brevoort, 1856): Lee & Yang, 1966:56, fig. 4; Chen & Weng, 1967:48; Chen, 1969: 132; Shen 1984a:112; Chen & Yu, 1986:252; Shen *et al.*, 1993:116; Shao *et al.*, 2008:239; Ho *et al.*, 2010:table 1.
Conger japonicus Bleeker, 1879:32, pl. 2, fig. 2 (type locality: Japan). Kanazawa, 1958:244).

Remarks. This species is commonly collected by bottom trawl around Taiwan. The identity of *Conger japonicus* has been disputed for many years, but current studies (Smith *et al.*, in prep.) indicate that Kanazawa (1958) was correct in synonymizing it with *C. myriaster*. The identity of many references to *Conger japonicus* in Taiwan is uncertain.

***Congriscus megastomus* (Günther, 1877)**

大口糯鰻

Congromuraena megastoma Günther, 1877:445 (type locality: off Inoshima, Hiroshima Prefecture, Japan).
Congriscus megastomus (Günther, 1877): Ho *et al.*, 2010:table 1.

Remarks. This species is occasionally collected by bottom trawl off northeastern Taiwan.

+*Gnathophis asanoi* Karmovskaya, 2004

淺野氏領吻鰻

Gnathophis asanoi Karmovskaya, 2004:S18, fig. 10 (type locality: Philippines, Sibuyan Sea, 13°08'N, 122°39'E, 440–280 m).

Voucher specimen: USNM 401080 (Dong-gang).

Remarks. This species originally described from the Philippines and newly recorded in Taiwan.

***Gnathophis heterognathos* (Bleeker, 1858)**

異領領吻糯鰻

Myrophis heterognathos Bleeker, 1858b:9, pl. 3, fig. 1 (type locality: Nagasaki, Japan).
Gnathophis heterognathos (Bleeker, 1858): Kaup, 1859:7; Castle, 1963:17.

Rhynchocymba nystromi (Jordan & Snyder, 1901): Chen & Weng, 1967:51; Chen, 1969:132; Shen 1984a:112; Chen & Yu, 1986:252.

Rhynchocymba nystromi nystromi (Jordan & Snyder, 1901): Chu, 1957:14; Liang & Yeh, 1964:8; Lee & Yang, 1966:57, fig. 6;
Shao *et al.*, 2008:239.

Gnathophis nystromi (Jordan & Snyder, 1901): Shen, 1988:15; Shao *et al.*, 1994a:274; Chen, 2004:32.

Gnathophis nystromi ginanago (Asano, 1958): ?Shao *et al.*, 1994a:274.

Remarks. This species was referred to *Gnathophis nystromi* in most previous works. However, Castle (1963) first suggested and Karmovskaya (2004) later confirmed that *G. nystromi* is a junior synonym of *G. heterognathos*, which has not previously been used for the Taiwanese specimens.

***Gorgasia japonica* Abe, Miki & Asai, 1977**

日本園鰻

Gorgasia japonica Abe, Miki & Asai, 1977:1, pl. 1, fig. 2 (type locality: near Hachijo-Kojima, 33°07'N, 139°42'E, Japan).
Shao, 1990:11.

Remarks. This is a rare species and has only been recorded from Lan-yu Island off southeastern Taiwan.

****Gorgasia taiwanensis* Shao, 1990**

臺灣園鰻

Gorgasia taiwanensis Shao, 1990:4, figs.2-6 (Type locality: Wanlitung, southern Taiwan, 22 m). Shao *et al.*, 2008:239; Ho & Shao, 2011:23, table 1.

Remarks. This is a rare species occasionally found on sandy bottoms near coral reef areas in southern and southeastern Taiwan.

***Heteroconger hassi* (Klausewitz & Eibl-Eibesfeldt, 1959)**

哈氏異糯鰻

Xarifania hassi Klausewitz & Eibl-Eibesfeldt, 1959:138, figs. 6, 8, 15, 16 (type locality: Addu Atoll, between Gan Island and Fedu Island, Maldives Islands, Indian Ocean).

Heteroconger hassi (Klausewitz & Eibl-Eibesfeldt, 1959): Shao *et al.*, 2008:239.

Remarks. This species is commonly found in colonies with up to several hundred individuals, on sandy bottom near coral reef areas around Taiwan.

***Japononconger sivicolus* (Matsubara & Ochiai, 1951)**

禿吻日本糯鰻

Arisoma [sic] *sivicola* Matsubara & Ochiai, 1951:11 (type locality: off Owase, Kumano-Nada, Japan).

Japononconger sivicolus (Matsubara & Ochiai, 1951): Shao *et al.*, 2008:239.

Remarks. A rare species only represented by several specimens collected from deep waters around Taiwan.

+*Macrocephenchelys brachialis* Fowler, 1934

大頭糯鰻

Macrocephenchelys brachialis Fowler, 1934:277, fig. 36 (type locality: Makassar Strait, between Borneo and Sulawesi, Indonesia, 2°56'00"S, 118°47'30"E, 367 fathoms [671 m]).

Voucher specimens: many specimens in ASIZP, NMMB-P and USNM.

Remarks. This is a new record for Taiwan. It is commonly collected from deep waters off northeastern and southwestern Taiwan. It is quite abundant in the bycatch of bottom trawls.

****Macrocephenchelys brevirostris* (Chen & Weng, 1967)**

大頭短吻糯鰻

Rhynchoconger brevirostris Chen & Weng, 1967:54, fig. 40 (type locality: Tungkang, southwestern Taiwan). Chen, 1969:132; Shen 1984a:113; Chen & Yu, 1986:253; Shen *et al.*, 1993:117.

Macrocephenchelys brevirostris (Chen & Weng, 1967): Smith in Randall & Lim, 2000:586; Karmovskaya, 2004:S24; Shao *et al.*, 2008:239; Ho *et al.* 2010:23, table 1; Ho & Shao, 2011:24, table 1.

Remarks. This is a common deepwater species collected by bottom trawls, more abundant off southwestern than in northeastern Taiwan. It is likely a senior synonym of *Macrocephenchelys soela* Castle, 1990, described from Australia. According to Karmovskaya (2004), this species also occurs in the Philippines and New Caledonia.

+*Parabathymyrus brachyrhynchus* (Fowler, 1934)

粗頷擬海糯鰻

Arisoma [sic] *brachyrhynchus* Fowler, 1934:269, fig. 30 (Bongo Island, Illana Bay, southern Mindanao Island, Philippines, 7°21'45"N, 124°07'15"E, 158 fathoms [289 m]).

Parabathymyrus brachyrhynchus (Fowler, 1934): Smith & Kanazawa, 1977:532; Ho *et al.*, 2015b:134.

Remarks. A common species collected from deep waters by bottom trawl off northeastern and southwestern Taiwan, more abundant in southwestern Taiwan. Many specimens in the collections were previously misidentified as *P. macrophthalmus*.

***Parabathymyrus macrophthalmus* Kamohara, 1938**

大眼擬海鰻鰻

Parabathymyrus macrophthalmus Kamohara, 1938:14, fig. 4 (type locality: Mimase, Kochi Prefecture, Japan). Li, 1960:87; Chen & Weng, 1967:41; Chen, 1969:132; Shen 1984a:111; Chen & Yu, 1986:252; Shen *et al.*, 1993:117; Shao *et al.*, 2008:239; Ho *et al.*, 2015b:137.

Remarks. This species is less abundant than *P. brachyrhynchus* in Taiwan. We also examined many specimens collected from Vietnam, which represent a new record in Vietnamese waters.

****Rhynchoconger ectenurus* (Jordan & Snyder, 1901)**

突吻纖尾鰻鰻

Leptocephalus ectenurus Jordan & Richardson, 1909:171, pl. 66 (type locality: Takao [Kaohsiung], southwestern Taiwan).

Rhynchoconger ectenurus (Jordan & Richardson, 1909): Chen, 1956:76; Lee & Yang, 1966:58, fig. 7; Chen & Weng, 1967:52; Chen, 1969:132; Shen 1984a:113; Chen & Yu, 1986:253; Shen *et al.*, 1993:117; Shao *et al.*, 1994a:274; Shao *et al.*, 2008:239; Ho *et al.*, 2010:table 1; Ho & Shao, 2011:23, table 1.

Rhynchocymba ectenura (Jordan & Snyder, 1901): Chu, 1957:15.

**Rhynchoconger brachuata* Chu & Chen, 1958:127, fig. 1 (type locality: Taipei fish market).

Remarks. A very common species collected by bottom trawls from deep waters around Taiwan.

***Uroconger lepturus* (Richardson, 1845)**

狹尾鰻鰻

Congrus lepturus Richardson, 1845b:106, pl. 56, figs. 1–6 (type locality: Canton, China).

Uroconger lepturus (Richardson, 1845): Chen & Weng, 1967:56; Chen, 1969:133; Shen 1984a:113; Chen & Yu, 1986:253; Shen *et al.*, 1993:118; Shao *et al.*, 2008:239; Ho *et al.*, 2010:table 1.

Remarks. A species complex which may represent more than one species. At least two species occur in Taiwan, based on DNA barcodes, number of cephalic pores and coloration. Further studies are needed. Very common around Taiwan.

Family Derichthyidae

項鰻科

+*Nessorhamphus danae* Schmidt, 1931

丹氏鴨項鰻

Nessorhamphus danae Schmidt, 1931:487, fig. 4 (type locality: Indian Ocean, W of Sumatra).

Voucher specimen: USNM 436661.

Remarks. This is a new record for the family and genus in Taiwan and is based on a single metamorphic larva from Dong-gang, SW Taiwan. It is tentatively identified as *N. danae* based on the position of the last vertical blood vessel (LVBV, or renal artery), at approximately myomere 65–71, which is within the range given for this species by Karmovskaya (1985). The comparable count in *N. ingolfianus*, the only other species in the genus, is 72–78.

Family Moringuidae

鰐鰻科

Remarks. The Moringuidae is undoubtedly the most misunderstood family of eels and one of the most misunderstood of all fish families. It needs to be thoroughly revised. Three species have been recorded in Taiwan,

but these records should be considered provisional. *Moringua macrochir* was recorded by Chou & Kao (2011). However, no voucher was provided and the identification is thus not verified.

***Moringua abbreviata* (Bleeker, 1863)**

短線鰐鰻

Aphthalmichthys abbreviatus Bleeker, 1863:163 (type locality: Prigi, Java; Batu; Manado, Sulawesi; Ternata; Ambon, Indonesia).

Moringua abbreviata (Bleeker, 1863): Chen & Weng, 1967:8; Chen, 1969:124; Shen, 1984a:103; Chen & Yu, 1986:247; Shen et al., 1993:98, fig. 14-8; Shao et al., 2008:237; Ho et al., 2010:table 1.

***Moringua macrocephalus* (Bleeker, 1863)**

大頭鰐鰻

Aphthalmichthys macrocephalus Bleeker, 1863:165 (type locality: Timor Island, southern Malay Archipelago): Li, 1960:88.

Moringua macrocephalus (Bleeker, 1863): Chen & Weng, 1967:7; Chen, 1969:124; Shen, 1984a:103; Chen & Yu, 1986:242; Shen et al., 1993:98, fig. 14-9; Shao et al., 2008:237; Ho et al., 2010:table 1.

Family Muraenesocidae

海鰻科

***Congryynchus talabonoides* Fowler, 1934**

原鶴康吉吻鰻

Congryynchus talabonoides Fowler, 1934:273, fig. 33 (type locality: Macabalan Pt., northern Mindanao Island, Philippines, 8°37'37"N, 124°35'E, ca. 214 fathoms [391 m]). Chen & Yu, 1986:254.

Remarks. This species has only been recorded in Taiwan once; there is a voucher in NMMB-P collection (NMMB-P1461) and the identification is confirmed.

***Congresox talabon* (Cuvier, 1829)**

原鶴海鰻

Conger talabon Cuvier, 1829:350 (type locality: Vizagapatnam, India).

Muraenesox talabon (Cuvier, 1829): Li, 1960:84; Chen & Weng, 1967:77; Chen, 1969:133; Shen 1984a:114; Chen & Yu, 1986:254; Shen, 1988:15; Chen, 2004:31.

Congresox talabon (Cuvier, 1829): Castle & Williamson, 1975:3.

Remarks. This species was first reported from Taiwan by Li (1960), but the specimens on which the record was based were reidentified by Lin et al. (2013) as *Oxyconger leptognathus*. Chen & Weng (1967) provided an account of the species from Taiwan and stated that specimens were "...preserved in the Department of Zoology of the National Taiwan University and in the Taiwan Fisheries Research Institute, collected from Keelung & Suao, length 500–1000 mm," although they did not give catalog numbers. Lin et al. (2013), however, were apparently unable to find these specimens and stated that "there was not any real record of *C. talabon* in Taiwan." Castle & Williamson (1975: fig. 4) included Taiwan in the range of *Congresox talabonoides* (Bleeker, 1853a) but not *C. talabon*. Further studies are needed to confirm the presence of either of these species in Taiwan.

****Gavialiceps taiwanensis* (Chen & Weng, 1967)**

台灣鱸頭鰻

Chlopsis taiwanensis Chen & Weng, 1967:81, fig. 61 (Type locality: Tungkang, southwestern Taiwan). Chen, 1969:134; Shen, 1984a:114; Chen & Yu, 1986:255; Shen et al., 1993:115.

Gavialiceps taiwanensis (Chen & Weng, 1967): Karmovskaya, 1994:84; Smith in Randall & Lim, 2000:586; Shao et al., 2008:239; Ho et al., 2010:25; Ho & Shao, 2011:24, table1; Lin et al., 2013:167.

Gavialiceps taeniola (not of Alcock, 1889): Shao *et al.*, 2008:239.

Remarks. The assignment of this species to the Muraenesocidae is provisional. This is the most abundant eel species found in bycatch of midwater trawls in Taiwan.

***Muraenesox bagio* (Hamilton, 1822)**

百吉海鰻

Muraena bagio Hamilton, 1822:24, 364 (type locality: Ganges River estuaries, India).

Muraenesox bagio (Hamilton, 1822): Shen, 1984a:114; Chen & Yu, 1986:254; Shen *et al.*, 1993:118; Chen & Fang, 1999:55; Shao *et al.*, 2008:239; Chen, 2004:31; Shen & Wu, 2011:135; Lin *et al.*, 2013:169.

Muraenesox yamaguchiensis Katayama & Takai, 1954:97, Figs. 1–2 (type locality: Yamaguchi Prefecture, Japan). Chen & Weng, 1967:76; Chen, 1969:133.

Remarks. *Muraenesox yamaguchiensis* was synonymized with *M. bagio* by Castle & Williamson (1975). This is a very common species collected by bottom trawls and hook and lines around Taiwan.

***Muraenesox cinereus* (Forsskål, 1775)**

灰海鰻

Muraena cinerea Forsskål, 1775:22 (Type locality: Jeddah, Saudi Arabia, Red Sea).

Muraenesox cinereus (Forsskål, 1775): Chen, 1956:77; Chu, 1957:15; Chen & Weng, 1967:75; Chen, 1969:133; Shen 1984a:114; Chen & Yu, 1986:254; Shen *et al.*, 1993:118; Shao *et al.*, 1994a:276; Chen, 2004:31; Shao *et al.*, 2008:239; Ho *et al.*, 2010:table 1; Shen and Wu, 2011:135; Lin *et al.*, 2013:170.

Remarks. This is a very common species collected by bottom trawls and hook and lines around Taiwan.

***Oxyconger leptognathus* (Bleeker, 1857)**

狹頷海鰻

Conger leptognathus Bleeker, 1857c:27, pl. 2, fig. 2 (type locality: Nagasaki, Japan).

Oxyconger leptognathus (Bleeker, 1857): Li, 1960:850; Chen & Weng, 1967:79; Chen, 1969:133; Shen 1984a:113; Chen & Yu, 1986:254; Shen, 1988:15; Shen *et al.*, 1993:119; Chen, 2004:31; Shao *et al.*, 2008:239; Ho *et al.*, 2010:table 1; Lin *et al.*, 2013:171.

Remarks. An uncommon species collected by bottom trawls from around Taiwan. Based on a recent field observation by HH, this species may live in association with deep corals in southwestern Taiwan at depths around 100–200 m.

Family Muraenidae

鯉科

***Anarchias allardicei* Jordan & Starks, 1906**

褐裸臀鯉

Anarchias allardicei Jordan & Starks in Jordan & Seale, 1906:204, fig. 9 (type locality: Pago Pago, Tutuila Island, American Samoa). Lee, 1980:57; Shen *et al.*, 1993:99, fig. 19-2; Chen *et al.*, 1994:54; Chen, 2004:26; Shao *et al.*, 2008:238; Loh *et al.*, in press:table 1.

Gymnomuraena concolor (not of Rüppell, 1838): Chen & Weng, 1967:38; Chen, 1969:129; Shen, 1984a:107; Chen & Yu, 1986:249.

Remarks. A small species commonly collected in tidal pools or subtidal zone of southern Taiwan.

***Anarchias cantonensis* (Schultz, 1943)**

廣東裸臀鯽

Uropterygius cantonensis Schultz, 1943:27, pl. 4, fig. 3a (type locality: lagoon of Canton Island, Phoenix Islands, southern central Pacific).

Anarchias cantonensis (Schultz, 1943): Loh *et al.*, in press:table 1.

Remarks. A rare species collected in tidal pools or subtidal zone in southeastern Taiwan.

***Channomuraena vittata* (Richardson, 1845)**

環帶裂口鯽

Ichthyophis vittatus Richardson, 1845a: pl. 53, figs. 7–9 (type locality uncertain, brought from China).

Channomuraena vittata (Richardson, 1845): Loh *et al.*, in press:table 1.

Remarks. A very rare species only represented by a few specimens collected from southeastern Taiwan.

****Cirrimaxilla* Chen & Shao, 1995**

Cirrimaxilla Chen & Shao, 1995:328 (Type species. *Cirrimaxilla formosa* Chen & Shao, 1995, by monotypy). Loh *et al.*, 2008:138; Séret *et al.*, 2008:192; Ho & Shao, 2011:21.

****Cirrimaxilla formosa* Chen & Shao, 1995**

台灣鬚鯽

Cirrimaxilla formosa Chen & Shao, 1995:330, fig. 1 (Type locality: Nanwan, southern tip of Taiwan, Ping-tung County). Shao *et al.*, 2008:238; Ho & Shao, 2011:21; tale 1; Loh *et al.*, 2008:138; Loh *et al.*, in press:table 1.

Remarks. This species was tentatively synonymized with *Channomuraena bauchotae* from the Indian Ocean by Böhlke & Smith (2002), but this needs to be confirmed. At any rate, neither of these species belongs in *Channomuraena*, which has quite different dentition. *Cirrimaxilla formosa* was recently found to be common in stomach contents of sea snakes in New Caledonia (Séret *et al.*, 2008).

***Echidna nebulosa* (Ahl, 1789)**

星帶蝮鯽

Muraena nebulosa Ahl, 1789:7, pl. 1, right fig. (type locality: in Orientalia India [Indonesia]).

Echidna nebulosa (Ahl, 1789): Chen & Weng, 1967:13; Chen, 1969:127; Shen, 1984a:106; Shen, 1988:11; Chen & Yu, 1986:247; Shen *et al.*, 1993:100; Shao *et al.*, 1994a:276; Chen *et al.*, 1994:47; Chen *et al.*, 1997:appendix 1; Chen, 2004:27; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1; Loh *et al.*, in press:table 1.

Remarks. A very common species found in coral reef regions of shallow waters around Taiwan.

***Echidna polyzona* (Richardson, 1845)**

多環蝮鯽

Muraena polyzona Richardson, 1845b:112, pl. 55, figs. 11–14 (No locality stated).

Echidna polyzona (Richardson, 1845): Jordan & Richardson, 1909:173; Chen, 1956:79; Chen & Weng, 1967:11; Chen, 1969:127; Shen, 1984a:106; Shen, 1988:11; Chen & Yu, 1986:247; Shen *et al.*, 1993:100, fig. 15-1, 2; Shao *et al.*, 1994a:276; Chen *et al.*, 1994:47; Chen *et al.*, 1997:appendix 1; Chen, 2004:27; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1; Loh *et al.*, in press:table 1.

Remarks. A common species found in the coral reef regions around Taiwan.

***Echidna xanthospilos* (Bleeker, 1859)**

黃斑蝮鯀

Muraena xanthospilos Bleeker, 1859:348 (type locality: Java, Indonesia, eastern Indian Ocean).
Echidna xanthospilos (Bleeker, 1859): Loh *et al.*, in press:table 1.

Remarks. A rare and relatively deepwater species living in southeastern Taiwan that is represented by only a few specimens in collections.

***Enchelycore bayeri* (Schultz, 1953)**

貝氏勾吻鯀

Gymnothorax bayeri Schultz in Schultz *et al.*, 1953:124, figs. 23f, 26 (type locality: lagoon coral head at Kieschiechi Island, Rongelap Atoll, Marshall Islands, western Pacific, 20 feet [6 m]).
Enchelycore bayeri (Schultz, 1953): Loh *et al.*, in press:table 1.

Remarks. This is a rare species in Taiwan that is only represented by a few specimens in the collections.

***Enchelycore bikiniensis* (Schultz, 1953)**

比吉尼勾吻鯀

Gymnothorax bikiniensis Schultz in Schultz *et al.*, 1953:116, figs. 23e, 24 (Type locality: Cherry Island, Bikini Atoll, Marshall Islands).
Enchelycore bikiniensis (Schultz, 1953): Shen *et al.*, 1993:100, fig. 15-3; Chen *et al.*, 1994:47; Loh *et al.*, in press:table 1.

Remarks. The presence of this species in Taiwan is questionable. It was recorded by Shen *et al.* (1993) and Chen *et al.* (1994), but the latter remarked on its similarity to *Enchelycore schismatorhynchus* and questioned whether those two species were distinct. They are in fact easily distinguished by the funnel-shaped nostril of *E. schismatorhynchus* and by the number of vertebrae, 146–153 in *E. bikiniensis* and 137–142 in *E. schismatorhynchus* (Smith, 2012).

***Enchelycore lichenosa* (Jordan & Snyder, 1901)**

苔斑勾吻鯀

Aemasia lichenosa Jordan & Snyder, 1901:883, fig. 20 (Type locality: Wakanoura, Wakayama Prefecture, Japan, Inland Sea, Western North Pacific). Chen & Yu, 1986:249.
Enchelycore lichenosa (Jordan & Snyder, 1901): Shen *et al.*, 1993:100, fig. 15-4; Chen *et al.*, 1994:47; Loh *et al.*, in press:table 1.

Remarks. A common species found in the coral reef regions of northeastern Taiwan.

***Enchelycore pardalis* (Temminck & Schlegel, 1846)**

豹紋勾吻鯀

Muraena pardalis Temminck & Schlegel, 1846:268, pl. 119 (type locality: Nagasaki, Japan). Chen & Weng, 1967:15; Chen, 1969:127; Shen, 1984a:107; Chen & Yu, 1986:247; Shao *et al.*, 1994a:276.
Enchelycore pardalis (Temminck & Schlegel, 1846): Shen *et al.*, 1993:101; Chen *et al.*, 1994:47; Chen, 2004:27; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1; Loh *et al.*, in press:table 1.

Remarks. A common species found in the coral reef regions around Taiwan.

***Enchelycore schismatorhynchus* (Bleeker, 1853)**

裂吻勾吻鯀

Muraena schismatorhynchus Bleeker, 1853c:301 (type locality: Bengkulu, Sumatra, Indonesia, eastern Indian Ocean).
Enchelycore schismatorhynchus (Bleeker, 1853c): Shen *et al.*, 1993:101, fig. 15-6, 7; Chen *et al.*, 1994:48; Chen, 2004:27; Loh *et al.*, in press:table 1.

Gymnothorax schismatorhynchus (Bleeker, 1853c): Chen & Yu, 1986:247.

Remarks. A common species found in the coral reef regions of southern Taiwan.

***Enchelynassa canina* (Quoy & Gaimard, 1824)**

長牙鼻瓣鯰

Muraena canina Quoy & Gaimard, 1824:247 (type locality: Pulau Waigeo, Papua Barat, Indonesia and Papua New Guinea).

Enchelynassa canina (Quoy & Gaimard, 1824): Chen & Yu, 1986:249; Loh *et al.*, 2012:210; Loh *et al.*, in press:table 1.

Remarks. A relatively deep living rare species from southeastern Taiwan represented by only a few specimens in collections.

***Gymnomuraena zebra* (Shaw, 1797)**

斑馬裸鯰

Gymnothorax zebra Shaw in Shaw & Nodder, 1797: no page, pl. 322 (type locality: Sumatra, Indonesia [originally American seas]).

Echidna zebra (Shaw, 1797): Chen & Weng, 1967:10; Chen, 1969:127; Shen, 1984a:106; Chen & Yu, 1986:247.

Gymnomuraena zebra (Shaw, 1797): Shen *et al.*, 1993:101; Chen *et al.*, 1994:48; Chen, 2004:27; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1; Loh *et al.*, in press:table 1.

Remarks. A common species found in the coral reef regions of southern Taiwan.

***Gymnothorax albimarginatus* (Temminck & Schlegel, 1846)**

白邊裸胸鯰

Muraena albimarginata Temminck & Schlegel, 1846:267, pl. 118 (Type locality: Japan [Nagasaki]).

Gymnothorax albimarginatus (Temminck & Schlegel, 1846): Loh *et al.*, in press:table 1; Loh *et al.*, 2015:30.

?*Gymnothorax hepaticus* (not of Rüppell, 1830): Chen & Yu, 1986:249; Shen *et al.*, 1993:104; Chen *et al.*, 1994:50; Chen, 2004:28; Loh *et al.*, in press:table 1.

Remarks. A relatively deep-living and rare species represented by only a few specimens in collections. Also recorded by video taken on deep SCUBA dives at Green Island, southwestern Taiwan. *Gymnothorax hepaticus* does not occur outside the Indian Ocean, and previous records of that species from Taiwan may refer to *G. albimarginatus*.

***Gymnothorax berndti* Snyder, 1904**

班第氏裸胸鯰

Gymnothorax berndti Snyder, 1904:518, pl. 4, fig. 8 (type locality: Hololulu market, Oahu Island, Hawaiian Islands). Chen & Weng, 1967:29; Chen, 1969:129; Shen 1984a:108; Chen & Yu, 1986:248; Shen *et al.*, 1993:102, fig. 15-9; Chen *et al.*, 1994:49; Chen, 2004:27; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1; Loh *et al.*, in press:table 1.

Remarks. A relatively deep-living species that is commonly collected by hook and line at depths to 300 m around Taiwan.

***Gymnothorax bueroensis* (Bleeker, 1857)**

伯恩斯裸胸鯰

Muraena bueroensis Bleeker, 1857b:79 (type locality: Kajeli, Buru Island, Molucca Islands, Indonesia).

Gymnothorax bueroensis (Bleeker, 1857): Chen & Yu, 1986:248; Shen *et al.*, 1993:102, fig. 16-2; Chen *et al.*, 1994:49; Chen, 2004:27; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1; Loh *et al.*, in press:table 1.

Remarks. A common small moray, usually found in coral regions of southern Taiwan.

Gymnothorax chilosilus Bleeker, 1864

唇斑裸胸鯙

Gymnothorax chilosilus Bleeker, 1864b:52 (type locality: East Indian Archipelago [Indonesia]). Chen, 1956:80; Chen & Weng, 1967:36; Chen, 1969:129; Shen 1984a:108; Chen & Yu, 1986:249; Shen et al., 1993:103; Chen et al., 1994:49; Chen, 2004:27; Shao et al., 2008:238; Ho et al., 2010:table 1; Loh et al., in press:table 1.
Muraena nubila (not of Richardson, 1848): Günther, 1870:117.

Remarks. A small species living on coral reefs and near shore.

Gymnothorax chlamydatus Snyder, 1908

黑環裸胸鯙

Gymnothorax chlamydatus Snyder, 1908:94 (type locality: Naha market, Okinawa Island, Ryukyu Islands, Japan). Lee & Tseng, 1985:285; Shen et al., 1993:102; Chen et al., 1994:49; Chen, 2004:27; Loh et al., in press:table 1.
Gymnothorax meleagris (not of Shaw, 1795): Shen et al., 1993:104.

Remarks. A relatively deep-living and rare species that is only represented by a few specimens in collections.

Gymnothorax elegans Bliss, 1883

雅緻裸胸鯙

Gymnothorax elegans Bliss, 1883:60 (type locality: Mauritius, Mascarenes, southwestern Indian Ocean). Loh et al., 2012:211.

Remarks. A rare species living in deep water and represented by a few specimens in collections in Taiwan.

Gymnothorax eurostus (Abbott, 1860)

徽身裸胸鯙

Thyrsoidea eurosta Abbott, 1860:478 (type locality: Hawaiian Islands).

Gymnothorax eurostus (Abbott, 1860): Shen et al., 1993:103; Chen et al., 1994:50; Chen et al., 1997:appendix 1; Shao et al., 2008:238; Ho et al., 2010:table 1; Loh et al., in press:table 1.

Gymnothorax meleagris (not of Shaw, 1795): Chen & Weng, 1967:20; Shen et al., 1993:103.

Remarks. A common species is found in coral reef regions around Taiwan. It is similar to *G. meleagris*, and the two species have been confused in the past (i.e. Chen & Weng, 1967). In a further complication, Hatooka (2002:1453) concluded that the holotype of *G. meleagris* is actually the species currently known as *G. eurostus*. Smith (2012) examined this specimen and found the identification difficult to resolve. Further studies are needed, but we retain the traditional interpretation here.

Gymnothorax favagineus Bloch & Schneider, 1801

黑斑裸胸鯙

Gymnothorax favagineus Bloch & Schneider, 1801:525, pl. 105 (type locality: Tharangambadi, India). Chen, 1956:80; Chen & Weng, 1967:33; Chen, 1969:129; Chen & Yu, 1986:249; Chen et al., 1994:50; Shao et al., 1994b:64; Shen et al., 1993:103; Chen, 2004:28; Chen & Loh 2007:80; Shao et al., 2008:238; Ho et al., 2010:table 1; Loh et al., in press:table 1.

Remarks. This species is easily confused with *G. isingteena*, and the records above might include misidentification of that species. The color pattern seems to change with growth and further study is needed to confirm its identification.

Gymnothorax fimbriatus (Bennett, 1832)

縫斑裸胸鯙

Muraena fimbriata Bennett, 1832:168 (type locality: Mauritius, Mascarenes, southwestern Indian Ocean).

Gymnothorax fimbriatus (Bennett, 1832): Jordan & Richardson, 1909:173; Chen & Weng, 1967:32; Chen, 1969:129; Chen & Yu, 1986:249; Shen, 1988:12; Shen et al., 1993:103; Chen et al., 1994:50; Chen et al., 1997:appendix 1; Chen, 2004:28; Shao et al., 2008:238; Ho et al., 2010:table 1; Loh et al., in press:table 1.

Remarks. A common species found in the coral reef regions around Taiwan.

***Gymnothorax flavimarginatus* (Rüppell, 1830)**

黃邊鰭裸胸鯙

Muraena flavimarginata Rüppell, 1830:119, pl. 30, fig. 3 (type locality: Red Sea).

Gymnothorax flavimarginatus (Rüppell, 1830): Jordan & Richardson, 1909:240; Chen, 1956:80; Chen & Weng, 1967:22; Chen, 1969:127; Shen, 1984a:107; Chen & Yu, 1986:248; Shen et al., 1993:103; Chen et al., 1994:50; Chen, 2004:28; Shao et al., 2008:238; Ho et al., 2010:table 1; Loh et al., in press:table 1.

Remarks. A species commonly found in the coral reef regions around Taiwan.

***Gymnothorax formosus* Bleeker, 1864**

美麗裸胸鯙

Gymnothorax formosus Bleeker, 1864b:51 (type locality: Wahai, Ceram, Indonesia). Loh et al., in press:table 1.

Remarks. A species commonly found in the coral reef regions of southeastern Taiwan.

***Gymnothorax fuscomaculatus* (Schultz, 1953)**

褐點裸胸鯙

Rabula fuscomaculata Schultz in Schultz, et al., 1953:147, fig. 30 (Type locality: Marshall Islands, Western Pacific).

Gymnothorax fuscomaculatus (Schultz, 1953): Loh et al., 2012:213.

Remarks. A very rare species represented by only one specimen collected from southern Taiwan.

***Gymnothorax gracilicauda* Jenkins, 1903**

細尾裸胸鯙

Gymnothorax gracilicauda Jenkins, 1903:426, fig. 6 (type locality: Honolulu, Oahu Island, Hawaiian Islands). Loh et al., in press:table 1.

Remarks. A very rare species in Taiwan.

***Gymnothorax herrei* Beebe & Tee Van, 1933**

海氏裸胸鯙

Gymnothorax brunneus Herre, 1923:212 (type locality: Analao, Batangas, Philippines, 13°45'N, 120°55'E, 0–3 m) (Preoccupied). Shen et al., 1993:102, fig. 15-10; Chen et al., 1994:49.

Gymnothorax herrei Beebe & Tee Van, 1933:138 (replacement name for *Gymnothorax brunneus* Herre, 1923). Shao et al., 2008:238; Loh et al., in press:table 1.

Remarks. There is only one specimen collected from a tide pool in southern Taiwan.

***Gymnothorax intesi* (Fourmanoir & Rivaton, 1979)**

英氏裸胸鯙

Lycodontis intesi (Fourmanoir & Rivaton, 1979):426, fig. 16 (type locality: Lifou Island, Loyalty Islands, southwestern Pacific, 400 m).

Gymnothorax intesi Fourmanoir & Rivaton, 1979: Loh et al., in press:table 1.

Remarks. A deep water species that occasionally collected by bottom trawl or hook and line off southeastern Taiwan.

***Gymnothorax isingteena* (Richardson, 1845)**

大斑裸胸鯙

Muraena isingteena Richardson, 1845a: pl. 48, fig. 1 (type locality: Canton, China).

Gymnothorax isingteena: (Richardson, 1845): Ho & Shao, 2011:21, table 1; Smith 2012:17.

Gymnothorax melanospilos (Bleeker, 1855): Jordan & Richardson, 1909:174, fig. 67; Okada, 1938:155; Chen, 1956:80; Chen & Weng, 1967:30; Chen, 1969:129; Shen, 1984b:109; Chen & Yu, 1986:248; Shen, 1988:13.

**Gymnothorax pescadoris* Jordan & Evermann, 1902:173, fig. 8 (type locality: Kotosho, Hokoto [Taipai City] or Pescadores Islands, Taiwan). Jordan & Richardson, 1909:326, fig. 9; Okada & Matsubara, 1938:99, pl.14, fig. 3; Matsubara, 1955:354; Chen & Weng, 1967:31; Chen, 1969:129; Chen & Yu, 1986:249; Shao et al., 1994a:276.

Remarks. This species is easily confused with *G. favagineus*, and the citations provided above might include misidentifications of that species. Also see Remarks under *G. favagineus*. Common in Taiwan.

***Gymnothorax javanicus* (Bleeker, 1859)**

爪哇裸胸鯙

Muraena javanica Bleeker, 1859:347 (type locality: Patjitan, Java, Indonesia).

Gymnothorax javanicus (Bleeker, 1959): Shen et al., 1993:104; Chen et al., 1994:50; Chen et al., 1997:appendix 1; Chen, 2004:28; Shao et al., 2008:238; Loh et al., in press:table 1.

Remarks. A common species collected by hook and line from coral reef areas around Taiwan. It is the largest of all moray eels by weight.

***Gymnothorax kidako* (Temminck & Schlegel, 1846)**

蟠紋裸胸鯙

Muraena kidako Temminck & Schlegel, 1846:266, pl. 117 (type locality: Nagasaki, Japan).

Gymnothorax kidako (Temminck & Schlegel, 1846): Chen, 1956:80; Chen & Weng, 1967:25; Chen, 1969:128; Shen 1984a:108; Chen & Yu, 1986:248; Shen et al., 1993:104; Chen et al., 1994:51; Chen, 2004:28; Shao et al., 2008:238; Loh et al., in press:table 1.

Remarks. A common species collected by hook and line at shallow waters around Taiwan.

***Gymnothorax margaritophorus* Bleeker, 1864**

斑頸裸胸鯙

Gymnothorax margaritophorus Bleeker, 1864b:53 (type locality: Ambon Island, Molucca Islands, Indonesia). Shen et al., 1993:104; Chen & Wang, 1994a:159; Chen et al., 1994:51; Chen, 2004:28; Shao et al., 2008:238; Ho et al., 2010:table 1; Loh et al., in press:table 1.

Remarks. A small species common on coral reefs.

****Gymnothorax melanosomatus* Loh, Shao & Chen, 2011**

黑身裸胸鯙

Gymnothorax melanosomatus Loh, Shao & Chen, 2011:44, figs. 1–2 (type locality: offshore from Changbin, Taitung, Taiwan, 50–100 m). Smith, 2012:19; Loh et al., in press:table 1; Loh et al., 2015:30.

Remarks. A relatively deep-living species that is commonly collected by hook and line off southeastern Taiwan.

***Gymnothorax melatremus* Schultz, 1953**

黃身裸胸鯙

Gymnothorax melatremus Schultz in Schultz, et al., 1953:120, figs. 23d, 25 (type locality: Boby Island, Bikini Atoll, Marshall Islands, western Pacific). Shen et al., 1993:104; Chen et al., 1994:51; Loh et al., in press:table 1.

Remarks. A small species with small body size collected around coral reefs.

***Gymnothorax meleagris* (Shaw, 1795)**

白口裸胸鯙

Muraena meleagris Shaw in Shaw & Nodder, 1795:no page number, pl. 220 (type locality: Southern Ocean).

Gymnothorax meleagris (Shaw, 1795): Chen, 1956:79; Chen & Weng, 1967:20; Shen, 1984a:107; Shen, 1984:106; Chen & Yu, 1986:247; Shen et al., 1993:105; Chen et al., 1994:51; Chen et al., 1997:appendix 1; Chen, 2004:29; Shao et al., 2008:238; Loh et al., in press:table 1.

Gymnothorax chlorostigma (Kaup, 1856): Chen, 2004:27.

Remarks. See Remarks under *G. eurostus*.

***Gymnothorax minor* (Temminck & Schlegel, 1846)**

小裸胸鯙

Muraena minor Temminck & Schlegel, 1846:269, pl. 115, fig. 2 (type locality: Japan).

Gymnothorax minor (Temminck & Schlegel, 1846): Chen, 2004:29; Shao et al., 2008:238; Ho et al., 2010:table 1; Loh et al., in press:table 1.

Gymnothorax reticularis (not of Bloch, 1795): Jordan & Richardson, 1909:173; Chen, 1956:80; Chu, 1957:15; Liang & Yeh, 1964:8; Lee, 1967:44; Chen & Weng, 1967:23; Chen, 1969:127; Shen, 1984a:107; Chen & Yu, 1986:248; Shen, 1988:14; Shen et al., 1993:106; Chen et al., 1994:52; Shao et al., 1994a:276; Shao et al., 2008:238.

Lycodontis reticularis (not of Bloch, 1795): Fowler, 1932b:137, fig. 12.

Remarks. The most abundant moray species collected by bottom trawl off Taiwan. Previously referred to *G. reticularis* by many authors.

***Gymnothorax monostigma* (Regan, 1909)**

眼斑裸胸鯙

Muraena monostigma Regan, 1909:438 (type locality: Raiatea, Society Islands).

Gymnothorax monostigma (Regan, 1909): Chen & Yu, 1986:249; Shao et al., 2008:238; Loh et al., in press:table 1.

Gymnothorax monostigmus (Regan, 1909): Shen et al., 1993:105.

Remarks. A rare species collected by hook and line off southeastern Taiwan.

****Gymnothorax neglectus* Tanaka, 1911**

細花斑裸胸鯙

Gymnothorax neglectus Tanaka, 1911:28, pl. 7, fig. 24 (type locality: Keelung, Taihoku, northern Taiwan). Chen & Weng, 1967:35; Chen, 1969:129; Chen & Yu, 1986:249; Shen et al., 1993:105; Chen et al., 1994:51; Shao et al., 2008:238; Ho et al., 2010:table 1; Ho & Shao, 2011:21, table 1; Smith, 2012:21; Loh et al., in press:table 1.

Remarks. A relatively deep living species that is commonly collected by hook and line down to 300 m depth, in eastern Taiwan.

****Gymnothorax niphostigmus* Chen, Shao & Chen, 1996**

雪花斑裸胸鯀

Gymnothorax niphostigmus Chen, Shao & Chen, 1996:20, figs. 1–3 (type locality: Hopingtao fish market, Keelung, Taiwan, 100–150 m). Chen, 2004:29; Ho & Shao, 2011:21, table 1; Smith, 2012:22; Loh *et al.*, in press:table 1.

Remarks. A relatively deep-living species commonly collected by hook and line off eastern Taiwan.

***Gymnothorax nudivomer* (Günther, 1867)**

裸鋤裸胸鯀

Muraena nudivomer Günther in Playfair & Günther, 1867:127, pl. 18 (type locality: Zanzibar, Tanzania, western Indian Ocean).

Gymnothorax nudivomer (Günther, 1867): Shen *et al.*, 1993:105; Chen *et al.*, 1994:52; Chen, 2004:29; Loh *et al.*, in press:table 1.

Remarks. A common species found in coral reef regions around Taiwan.

***Gymnothorax phasmatodes* (Smith, 1962)**

無斑裸胸鯀

Lycodontis phasmatodes Smith, 1962:436, pl. 53, figs B, C & I (type locality: Inhaca Island, Mozambique, western Indian Ocean).

Gymnothorax phasmatodes (Smith, 1962): Loh *et al.*, in press:table 1; Loh *et al.*, 2015:30.

Remarks. A small species that is commonly collected by hook and line off southern Taiwan.

***Gymnothorax pictus* (Ahl, 1789)**

細點裸胸鯀

Muraena picta Ahl, 1789:8, pl. 2, right fig. (type locality: in Indian Orientalis [Indonesia]).

Gymnothorax pictus (Ahl, 1789): Chen & Weng, 1967:19; Chen, 1969:127; Shen, 1984a:107; Chen & Yu, 1986:247; Shao *et al.*, 1994a:276; Chen *et al.*, 1994:53; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1; Loh *et al.*, in press:table 1.

Siderea picta (Ahl, 1789): Chen, 2004:29; Shen *et al.*, 1993:107.

Remarks. A common species found in coral reef regions around Taiwan.

***Gymnothorax pindae* Smith, 1962**

平達裸胸鯀

Gymnothorax pindae Smith, 1962:430, pl. 55, fig. D (type locality: Pinda, Mozambique, western Indian Ocean). Shen *et al.*, 1993:105; Chen *et al.*, 1994:52; Shao *et al.*, 2008:238; Loh *et al.*, in press:table 1.

Remarks. A rare species only found in coral reef regions of southern Taiwan.

***Gymnothorax polyuranodon* (Bleeker, 1854)**

豹紋裸胸鯀

Muraena polyuranodon Bleeker, 1854:248 (type locality: Ceram, Indonesia).

Gymnothorax polyuranodon (Bleeker, 1854): Chen, 1956:79; Chen & Weng, 1967:21; Chen, 1969:127; Shen, 1984a:107; Chen & Yu, 1986:248; Shao *et al.*, 2008:238; Loh *et al.*, in press:table 1.

Remarks. A rare species found in freshwater regions around northeastern and southwestern Taiwan.

***Gymnothorax prionodon* Ogilby, 1895**

鋸齒裸胸鯽

Gymnothorax prionodon Ogilby, 1895:720 (type locality: Port Jackson, New South Wales, Australia). Ho *et al.*, 2010:table 1; Ho & Shao, 2011:21, table 1; Smith, 2012:25.

**Gymnothorax leucostigma* Jordan & Richardson, 1909:174, pl. 68 (type locality: Kaohsiung, Taiwan). Okada, 1938:154; Chen, 1956:80; Chen & Weng, 1967:34; Chen, 1969:129; Chen & Yu, 1986:249; Chen *et al.*, 1994:51; Shen *et al.*, 1993:104;

Gymnothorax leucostigmus (Jordan & Richardson, 1909): Chen, 2004:28.

Remarks. A relatively deep living species that is commonly collected by hook and line off southeastern Taiwan.

****Gymnothorax prolatus* Sasaki & Amaoka, 1991**

小長鯽

Gymnothorax prolatus Sasaki & Amaoka, 1991:7, figs. 1–3 (type locality: Suao fish market, northeastern Taiwan). Shao *et al.*,

2008:238; Ho *et al.*, 2010:table 1; Ho & Shao, 2011:22, table 1; Loh *et al.* 2011:45; Smith, 2012:25; Loh *et al.*, 2015:30.

Strophidion prolatus (Sasaki & Amaoka, 1991): Loh *et al.*, in press:table 1.

Remarks. A deep living species that is occasionally collected by bottom trawls off northeastern and southwestern Taiwan.

****Gymnothorax pseudomelanosomatus* Loh, Shao & Chen, 2015**

擬黑身裸胸鯽

Gymnothorax pseudomelanosomatus Loh, Shao & Chen in Loh *et al.*, 2015:32. (type locality: Changbin, Taitung county, southeastern Taiwan).

Remarks. A deep-living species that is only represented by the two type specimens collected from southeastern Taiwan and one specimen from southwestern Taiwan (USNM 395050); it is easily confused with *Gymnothorax melanosomatus*, which was also described from same region.

***Gymnothorax pseudothyrosoideus* (Bleeker, 1853)**

淡網紋裸胸鯽

Muraena pseudothyrosoidea Bleeker, 1853b:778 (type locality: Makassar, Sulawesi, Indonesia).

Gymnothorax pseudothyrosoideus (Bleeker, 1853b): Jordan & Richardson, 1909:173; Chen, 1956:80; Chen & Weng, 1967:28; Chen, 1969:129; Shen 1984a:108; Shen, 1984b:12; Chen & Yu, 1986:248; Shen *et al.*, 1993:105; Chen *et al.*, 1994:52; Chen *et al.*, 1997:appendix 1; Shao *et al.*, 1994a:276; Chen, 2004:29; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1; Loh *et al.*, in press:table 1.

Remarks. A common species found in coral reef regions around Taiwan.

***Gymnothorax reevesii* (Richardson, 1845)**

雷福氏裸胸鯽

Muraena reevesii Richardson, 1845a: pl. 49, fig. 2 (type locality: China seas).

Gymnothorax reevesii (Richardson, 1845): Shen *et al.*, 1993:106; Chen *et al.*, 1994:52; Chen, 2004:29; Loh *et al.*, in press:table 1.

Remarks. A common species found in coral reef regions around Taiwan.

***Gymnothorax richardsonii* (Bleeker, 1852)**

李氏裸胸鯽

Muraena richardsonii Bleeker, 1852:296 (type locality: Wahai, northern Ceram and Padang, western Sumatra, Indonesia).

Gymnothorax richardsonii (Bleeker, 1852): Shao *et al.*, 2008:238; Loh *et al.*, in press:table 1.

Gymnothorax richardsoni (Bleeker, 1852): Chen & Yu, 1986:248; Shen et al., 1993:106; Chen et al., 1994:52.

Remarks. An uncommon species found in southeastern and southern Taiwan occasionally.

***Gymnothorax rueppelliae* (McClelland, 1844)**

寬帶裸胸鯙

Dalophis rueppelliae McClelland, 1844:213 (type locality: Red Sea).

Gymnothorax rueppelliae (McClelland, 1844): Shen et al., 1993:106; Chen et al., 1994:53; Chen, 2004:29; Loh et al., in press:table 1.

Gymnothorax petelli (Bleeker, 1856): Chen & Yu, 1986:248.

Gymnothorax ruppelli (McClelland, 1844): Chen & Yu, 1986:248.

Gymnothorax ruppelli (McClelland, 1844): Shao et al., 2008:238.

Remarks. A common species found in coral reef regions around Taiwan.

***Gymnothorax sagmacephalus* Böhlke, 1997**

鞍斑裸胸鯙

Gymnothorax sagmacephalus Böhlke, 1997:100, figs. 12–14 (type locality: Tokyo Bay, Japan). Loh et al., in press:table 1; Loh et al., 2015:30.

Remarks. A small to moderate-size species that is commonly collected by hook and line off southern Taiwan.

****Gymnothorax shaoi* Chen & Loh, 2007**

邵氏裸胸鯙

Gymnothorax shaoi Chen & Loh, 2007:77, figs. 1–4 (type locality: off shore of Sanshengtai, 23.130°N, 121.414°E, Chengkung, Taitung, Taiwan.). Ho & Shao, 2011:22, table 1; Smith, 2012:27; Loh et al., in press:table 1.

Remarks. A species commonly collected by hook and line in coral reef regions of southeastern Taiwan.

****Gymnothorax taiwanensis* Chen, Loh & Shao, 2008**

臺灣裸胸鯙

Gymnothorax taiwanensis Chen, Loh & Shao, 2008:132, figs. 1–2 (type locality: offshore from Shihtiping, 23°29'N, 121°30'E, Hualien, eastern Taiwan, 10 m). Ho & Shao, 2011:22, table 1; Smith, 2012:28; Loh et al., in press:table 1.

Remarks. A species commonly collected by hook and line in the coral reef regions of southeastern Taiwan.

***Gymnothorax thyrsoideus* (Richardson, 1845)**

密點裸胸鯙

Muraena thrysoidea Richardson, 1845b:111 (type locality: Canton, China).

Gymnothorax thyrsoideus (Richardson, 1845): Shao et al., 2008:238; Ho et al., 2010:table 1; Loh et al., in press:table 1.

Gymnothorax thyrsoidea (Richardson, 1845): Chen & Yu, 1986:247; Shen et al., 1993:107.

Siderea thyrsoidea (Richardson, 1845): Chen et al., 1994:52; Chen, 2004:30.

Remarks. A common species found in coral reef regions around Taiwan.

***Gymnothorax undulatus* (Lacepède, 1803)**

疏斑裸胸鯙

Muraenophis undulata Lacepède (ex. Commerson), 1803:629, 642, pl. 19, fig. 2 (no type locality stated).

Gymnothorax undulatus (Lacepède, 1803): Chen, 1956:80; Chen & Weng, 1967:27; Chen, 1969:129; Shen 1984a:108; Chen &

Yu, 1986:248; 1991:140; Shen *et al.*, 1993:106; Chen *et al.*, 1994:53; Chen, 2004:29; Shao *et al.*, 2008:238; Loh *et al.*, in press:table 1.

Remarks. A common species found in coral reef regions around Taiwan.

***Gymnothorax ypsilon* Hatooka & Randall, 1992**

丫環裸胸鯛

Gymnothorax ypsilon Hatooka & Randall, 1992:183, figs. 1–2 (type locality: Uotsurijima Island, Senkaku Islands, Japan). Chen, 2004:29; Loh *et al.*, in press:table 1.

Gymnothorax punctatofasciatus (not of Bleeker, 1863): Okada, 1938:154; Chen, 1956:80; Chen & Weng, 1967:24; Chen, 1969:127; Shen, 1984a:108; Chen & Yu, 1986:248.

Remarks. This rare species is found in relatively deep coral reef regions around Taiwan. It was confused with *G. punctatofasciatus* by previous authors. The records of *G. punctatofasciatus* in Taiwan refers to this species.

***Gymnothorax zonipectis* Seale, 1906**

帶尾裸胸鯛

Gymnothorax zonipectis Seale, 1906:7, fig. 1 (type locality: Tahiti, Society Islands, South Pacific). Shen *et al.*, 1993:106; Chen *et al.*, 1994:53; Chen *et al.*, 1997:appendix 1; Shao *et al.*, 2008:238; Loh *et al.*, in press:table 1.

Remarks. A rare species found in coral reef regions of northeastern and southern Taiwan.

***Pseudechidna brummeri* (Bleeker, 1858)**

布氏擬蝮鯛

Muraena brummeri Bleeker, 1858a:137 (type locality: Atapupu, Timor Island, southern Malay Archipelago).

Pseudechidna brummeri (Bleeker, 1858): Loh *et al.*, in press:table 1; Loh *et al.*, 2015:30.

Strophidion brummeri (Bleeker, 1858): Shen 1984a:110; Chen & Yu, 1986:249; Shen *et al.*, 1993:107; Chen *et al.*, 1994:54.

Remarks. A rare species found in coral reef regions of southeastern Taiwan.

***Rhinomuraena quaesita* Garman, 1888**

管鼻鯛

Rhinomuraena quaesita Garman, 1888:114, fig. (type locality: Ebon Island, Marshall Islands, western Pacific). Shen, 1974:181; Shen, 1984a:106; Chen & Yu, 1986:247; Shen *et al.*, 1993:107; Chen *et al.*, 1994:53; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1; Loh *et al.*, in press:table 1.

Remarks. A rare species found in coral reef regions of southeastern Taiwan.

***Scuticaria tigrina* (Lesson, 1828)**

虎斑長圓鯛

Ichthyophis tigrinus Lesson, 1828:399 (type locality: Bora Bora, Society Islands [French Polynesia]).

Uropterygius tigrina (Lesson, 1828): Shen *et al.*, 1993:99.

Scuticaria tigrina (Lesson, 1828): Chen, 2004:29; Shao *et al.*, 2008:238; Loh *et al.*, in press:table 1.

Remarks. A rare species found in coral reef regions of southeastern Taiwan.

***Strophidion dorsalis* (Seale, 1917)**

長背長鯛

Gymnothorax dorsalis Seale, 1917:92 (type locality: Hong Kong). Loh *et al.*, in press:table 1.

Strophidon dorsalis (Seale, 1917): Loh *et al.*, 2015:30.

Remarks. This deep water species is commonly collected by bottom trawl or hook and line around Taiwan.

***Strophidon sathete* (Hamilton, 1822)**

長鰐

Muraenophis sathete Hamilton, 1822:17, 363 (type locality: Ganges estuaries near Calcutta, India).

Strophidon sathete (Hamilton, 1822): Shen *et al.*, 1993:108; Chen *et al.*, 1994:54; Shao *et al.*, 2008:238; Loh *et al.*, in press:table 1; Loh *et al.*, 2015:30.

Thyrsoidea macrurus (Bleeker, 1854): Chen, 1956:79; Chen & Weng, 1967:14; Chen, 1969:127; Chen & Yu, 1986:247.

Strophidon ui (Tanaka, 1918): Chen & Weng, 1967:37; Chen, 1969:129; Chen & Yu, 1986:249.

Thyrsoidea macrurus (Bleeker, 1854): Shen, 1984a:106.

Evenchelys macrurus (Bleeker, 1854): Jordan & Richardson, 1902:327; Fowler, 1932b:144, fig. 16.

Remarks. A very common species collected by bottom trawl and traps. This is the largest moray in length, though not in weight, with a total length up to 3.7 meters (Randall *et al.*, 1997).

+*Uropterygius alboguttatus* Smith, 1962

白斑鰭尾鯽

Uropterygius alboguttatus Smith, 1962:427, pl. 60, fig. E (type locality: Assumption Island, western Indian Ocean).

Uropterygius xanthopterus (not of Bleeker, 1859): Ho *et al.*, 2010:table 1.

Voucher specimen: NMNM-P 2560 (Taiwan).

Remarks. The specimen of *Uropterygius xanthopterus* listed in Ho *et al.* (2010) is reidentified as this species. This is a new record in Taiwan.

***Uropterygius macrocephalus* (Bleeker, 1864)**

巨頭鰭尾鯽

Gymnomuraena macrocephalus Bleeker, 1864b:54 (type locality: Ambon Island, Molucca Islands, Indonesia).

Uropterygius macrocephalus (Bleeker, 1864b): Shen *et al.*, 1993:99; Chen *et al.*, 1994:62; Chen *et al.*, 1997:appendix 1; Loh *et al.*, 2008:140; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1; Loh *et al.*, in press:table 1.

Remarks. A small species found in coral reef regions around Taiwan.

***Uropterygius marmoratus* (Lacepède, 1803)**

石點長圓鯽

Gymnomuraena marmorata Lacepède (ex Commerson), 1803:648, 649 (type locality: New Britain Island, Bismarck Archipelago, Papua New Guinea, western Pacific). Chen & Yu, 1986:249.

Scuticaria marmorata (Lacepède, 1803): Loh *et al.*, 2008:140; Loh *et al.*, in press:table 1.

Remarks. A rare species found in coral reef regions of southeastern Taiwan. Loh *et al.* (2008) transferred this species from its traditional placement in the genus *Uropterygius* to *Scuticaria*. This placement requires further research.

***Uropterygius micropterus* (Bleeker, 1852)**

小鰭鰭尾鯽

Muraena micropterus Bleeker, 1852:298 (type locality: Wahai, northern Ceram, Indonesia).

Uropterygius micropterus (Bleeker, 1852): Shen *et al.*, 1993:99; Chen *et al.*, 1994:62; Chen, 2004:30; Shao *et al.*, 2008:238; Loh *et al.*, 2008:140; Loh *et al.*, in press:table 1.

Remarks. A small species found in coral reef regions around Taiwan.

***Uropterygius nagoensis* Hatooka, 1984**

網紋鰭尾鯉

Uropterygius nagoensis Hatooka, 1984:20, figs. 1–4 (type locality: Nago fish market, Okinawa Island, Ryukyu Islands, western North Pacific). Chen, 2004:30.

Remarks. A very widely distributed species in the Indo-west Pacific region, but only recorded in Penghu Island in Taiwan.

****Uropterygius oligospondylus* Chen, Randall & Loh, 2008**

寡椎鰭尾鯉

Uropterygius oligospondylus Chen, Randall & Loh in Loh *et al.*, 2008:141, figs. 1H, 3–4 (type locality: Changbin, Taitung, southeastern Taiwan, 15 m). Ho & Shao, 2011:22, table 1; Smith, 2012:37; Loh *et al.*, in press:table 1.

Remarks. A medium-size species found in coral reef regions of southeastern Taiwan.

***Uropterygius xanthopterus* Bleeker, 1859**

黃鰭鰭尾鯉

Uropterygius xanthopterus Bleeker, 1859:350 (type locality: Patjitan, Java, Indonesia).

Voucher specimens: USNM 263107, 312868 (Kenting, S. Taiwan).

Remarks. The only specimen listed in Ho *et al.* (2010) was subsequently reidentified as *U. alboguttatus* by DGS. There are two other specimens in the USNM collection, however, that confirm the presence of the species.

Family Nemichthyidae

線鰻科

***Avocettina infans* (Günther, 1878)**

喙吻鰻

Nemichthys infans Günther, 1878:251 (type locality: Mid-Atlantic, 5°48'N, 14°20'W, 2500 fathoms [4572 m]).

Avocettina infans (Günther, 1878): Chen & Yu, 1986:261 (based on Nielsen & Smith, 1978). Shao *et al.*, 2008:239.

Remarks. A common species collected by midwater trawl or bottom trawl off northeastern and southwestern Taiwan. It is easily confused with *Nemichthys scolopaceus* but can be distinguished by the dark body color, the anus well behind the pectoral fin, and the non-filamentous tail.

***Nemichthys scolopaceus* Richardson, 1848**

線鰻

Nemichthys scolopaceus Richardson, 1848a:25, pl. 10, figs. 1–3 (type locality: south Atlantic off Brazil). Chen & Weng, 1967:84; Shen, 1984a:106; Chen & Yu, 1986:261; Shen *et al.*, 1993:108; Shao *et al.*, 2008:239; Ho *et al.*, 2010:table 1.

Remarks. A very common species collected by midwater or bottom trawls off northeastern and southwestern Taiwan.

Family Nettastomatidae

鴨嘴鰻科

***Nettastoma parviceps* Günther, 1877**

小頭鴨嘴鰻

Nettastoma parviceps Günther, 1877:446 (type locality: south of Tokyo, Japan, 345 fathoms [631 m]). Shao *et al.*, 2008:239.

Remarks. An uncommon deepwater species collected by bottom trawl off northeastern Taiwan.

***Nettastoma solitarium* Castle & Smith, 1981**

前鼻鴨嘴鰻

Nettastoma solitarium Castle & Smith in Smith, Böhlke & Castle, 1981:548, figs. 2–7 (Cabra Island, the Philippines, western Pacific, 415–510 m). Shao *et al.*, 2008:239; Ho *et al.*, 2010:table 1.

Remarks. A deepwater species occasionally collected by bottom trawl around Taiwan.

+*Nettenchelys gephyra* Castle & Smith, 1981

橋鴨蛇鰻

Nettenchelys gephyra Castle & Smith in Smith, Böhlke & Castle, 1981:553, figs. 8–11 (type locality: New Caledonia). Smith *et al.*, 2015:110.

Remarks. A rare deep-sea species collected by bottom trawl off northeastern Taiwan. This is a new record in Taiwan.

****Nettenchelys proxima* Smith, Lin & Chen, 2015**

近鴨蛇鰻

Nettenchelys proxima Smith, Lin & Chen in Smith *et al.*, 2015:114. (type locality: Dong-gang, southwestern Taiwan).

Remarks. A rare species only represented by the holotype and a tentatively identified specimen from the Philippines.

***Saurenchelys fierasfer* (Jordan & Snyder, 1901)**

線尾鴨嘴鰻

Chlopsis fierasfer Jordan & Snyder, 1901:860, fig. 10 (type locality: Wakanoura, Wakayama Prefecture, Japan). Chen, 1956:77; Liaw, 1960:4; Lee, 1967:44; Chen & Weng, 1967:80; Chen, 1969:134; Shen 1984a:114; Chen & Yu, 1986:255; Shen *et al.*, 1993:115.

Saurenchelys fierasfer (Jordan & Snyder, 1901): Shen, 1988:15; Shao *et al.*, 1994a:276; Chen, 2004:32; Shao *et al.*, 2008:239; Ho *et al.*, 2010:table 1.

Remarks. A very common species collected by midwater or bottom trawls around Taiwan.

****Saurenchelys gigas* Lin, Smith & Shao, 2015**

巨蜥鰻

Saurenchelys gigas Lin, Smith & Shao In Lin *et al.*, 2015:122 (type locality: Daxi, Yilan, northeastern Taiwan).

Remarks. This is the largest known species of the genus and is known from Taiwan and Vietnam.

+*Saurenchelys taiwanensis* Karmovskaya, 2004

台灣蜥鰻

Saurenlchelys taiwanensis Karmovskaya, 2004:S27 (Type locality: Philippines).

Voucher specimens: NMMB-P 10064, 10065, 11190, 11193, 11986, 12624, 13160, 15516, 15911, 16451, 19446 (Dong-gang); NMMB-P 12229 (Da-xi).

Remarks. This species was originally described from a single specimen collected in the Philippines. There are many specimens newly collected from deep waters off northeastern and southwestern Taiwan. This is a new record in Taiwan.

Family Ophichthidae

蛇鰐科

Bascanichthys kirkii (Günther, 1870)

褐蛇鰐

Ophichthys kirkii Günther, 1870:89 (type locality: Rovuma Bay, eastern Africa).

Bascanichthys kirkii (Günther, 1870): Chen & Weng, 1967:62; Chen, 1969:137; Shen 1984a:116; Chen & Yu, 1986:258; Shen et al., 1993:110; Shao et al., 2008:238; Ho et al., 2010:table 1.

Remarks. An uncommon species; several specimens have been collected from river mouths around Taiwan.

Brachysomophis cirrocheilos (Bleeker, 1857)

大口短體鰐

Ophisurus cirrocheilos Bleeker, 1857a:89 (type locality: Ambon, Indonesia).

Ophichthus cirrocheilos (Bleeker, 1857a): Günther, 1870:65.

Brachysomophis cirrocheilos (Bleeker, 1857a): Chen & Weng, 1967:58; Chen, 1956:75; Chen, 1969:135; Shen 1984a:116; Chen & Yu, 1986:258; Shen et al., 1993:111; McCosker & Randall, 2001:8; Shao et al., 2008:238; McCosker & Ho, 2014:95.

Remarks. A common species collected from muddy bottoms in shallow waters of western and southwestern Taiwan. It is sometimes confused with *Ophichthus lithinus* because of their similar coloration.

+*Brachysomophis crocodilinus* (Bennett, 1833)

鱷形短體鰐

Ophisurus crocodilinus Bennett, 1833:32 (type locality: Ambon Island, Molucca Islands, Indonesia).

Voucher specimens: Two specimens in the TOU-AE collection.

Remarks. This is a new record for Taiwan. It is commonly observed over sandy bottom just outside the coral reef region. Underwater photographs of the species were examined and their identification confirmed by HH. A few specimens were recently collected from southeastern Taiwan.

+*Brachysomophis henshawi* Jordan & Snyder, 1904

亨氏短體鰐

Brachysomophis henshawi Jordan & Snyder, 1904:940 (type locality: Honolulu, Hawaiian Is.).

Voucher specimens: FRIP 21492, 22153 (Taitung, southeastern Taiwan).

Remarks. This is a new record for Taiwan. Known only from several specimens collected by hook and line off southeastern Taiwan.

**Brachysomophis longipinnis* McCosker & Randall, 2001

長鰭短體蛇鰐

Brachysomophis longipinnis McCosker & Randall, 2001:23, figs. 5, 7–8, 13 (type locality: Taiwan Strait, ca. 50 m). Ho & Shao, 2011:23, table 1; McCosker & Ho, 2014:96.

Remarks. This species was originally described from the single holotype. McCosker & Ho (2014) reported two additional specimens recently collected in southwestern Taiwan.

+*Brachysomophis porphyreus* ((Temminck & Schlegel, 1846)

紫身短體蛇鰻

Ophisurus porphyreus Temminck & Schlegel, 1846:265, pl. 116 (type locality: Japan).

Brachysomophis porphyreus (Temminck & Schlegel, 1846): McCosker & Randall 2001:25.

Voucher specimens: ASIZP 70365, NMMB-P10465 (Da-xi); ASIZP 72251 (Dong-shi).

Remarks. Although McCosker & Randall (2001) noted that this species occurs in the Taiwan Strait, no voucher was available. Recently, several specimens were collected by the first author from shallow water near a river mouth in the Taiwan Strait. It attains a large size, with total length approaching 2 m.

***Callechelys kuro* (Kuroda, 1947)**

黑麗鰻

Aphthalmichthys kuro Kuroda, 1947:27 (type locality: Tosa Bay, Japan, 16–18 m).

Callechelys kuro (Kuroda, 1947): McCosker *et al.*, 2011:272.

Yirrkala kuro (Kuroda, 1947): Shao *et al.*, 2008:239.

Remarks. A very rare species represented by only a few specimens collected off northeastern and southwestern Taiwan.

***Callechelys marmorata* (Bleeker, 1854)**

雲紋麗鰻

Dalophis marmorata Bleeker, 1854:247 (type locality: Sibogha, western Sumatra [Sibolga, Sumatera Utara, Indonesia, eastern Indian Ocean]).

Callechelys marmorata (Bleeker, 1854): Shao *et al.*, 2008:238.

Remarks. A widespread species in the Indo-west Pacific Ocean, but only occasionally found in coral reef regions of southern Taiwan.

***Cirrhimuraena chinensis* Kaup, 1856**

中國鬚蛇鰻

Cirrhimuraena chinensis Kaup, 1856a:51 (type locality stated as China, Makassar [South Sulawesi, Indonesia] in Kaup, 1856b). Chen & Weng, 1967:59; Chen, 1969:137; Shen 1984a:116; Chen & Yu, 1986:258; Shen *et al.*, 1993:111; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1.

Remarks. An uncommon species collected from southwestern Taiwan and Kinmen Island near China. Although there seems to be more than one species in the western Pacific, our specimens are identical to those collected from Vietnam. This genus requires further taxonomic studies.

****Cirricaecula macdowelli* McCosker & Randall, 1993**

麥氏無鰭蛇鰻

Cirricaecula macdowelli McCosker & Randall, 1993:190, fig. 1-2 (type locality: Penghu Island, Taiwan strait, 30–50 m). Chen, 2004:30; Ho & Shao, 2011:23, table 1.

Remarks. This species is known only from the holotype collected in shallow water of Penghu Island, southwestern Taiwan.

****Echelus polyspondylus* McCosker & Ho, 2015**

多椎鰭蛇鰻

Echelus polyspondylus McCosker & Ho, 2015:73, figs. 1–3. (type locality: Dong-gang, southwestern Taiwan).

Remarks. Some specimens of this species were previously misidentified as *Myrophis microchir*, which indicates the similarity between these two groups. This is a deepwater species, occasionally collected by bottom trawl off northeastern and southwestern Taiwan.

***Echelus uropterus* (Temminck & Schlegel, 1846)**

小尾鰭蛇鰻

Conger uropterus Temminck & Schlegel, 1846:261 (Type locality: Nagasaki, Japan).

Echelus uropterus (Temminck & Schlegel, 1846): Shao *et al.*, 2008:238; Ho *et al.*, 2010:27, table 1.

Remarks. A very common species collected by bottom trawl off northeastern and southwestern Taiwan. The largest specimen exceeds 600 mm TL.

***Lamnostoma mindora* (Jordan & Richardson, 1908)**

龍口舌鰻

Caecula mindora Jordan & Richardson, 1908:239, fig. 4 (type locality: Mindoro Island, Philippines).

Lamnostoma mindora (Jordan & Richardson, 1908): Hatooka & Yoshino, 1998; Lin, 2007:88.

Remarks. A rare species only found in river mouth areas around Taiwan. Lin (2007) noted that the species can be found in lower reaches of streams in Yilan, Hualien, Taitung and Pingtung.

***Leiuranus semicinctus* (Lay & Bennett, 1839)**

半環平蓋蛇鰻

Ophisurus semicinctus Lay & Bennett, 1839:66, pl. 20, fig. 4 (type locality: Oahu? [Hawaiian Islands, central Pacific]).

Leiuranus semicinctus (Lay & Bennett, 1839): Chen & Weng, 1967:60; Chen, 1969:137; Shen 1984a:116; Chen & Yu, 1986:258; Shen *et al.*, 1993:111; Shao *et al.*, 2008:238; Ho *et al.*, 2010:table 1.

Remarks. An uncommon species occasionally found in coral reef regions.

***Muraenichthys gymnopterus* (Bleeker, 1853)**

裸鰭蟲鰻

Muraena gymnopterus Bleeker, 1853a:52 (type locality: Jakarta, Java, Indonesia).

Muraenichthys gymnopterus (Bleeker, 1853a): Chen & Yu, 1986:258.

Remarks. This rare species is only represented by few specimens in the collections of Taiwan.

+*Muraenichthys hattae* Jordan & Snyder, 1901

短鰭蟲鰻

Muraenichthys hattae Jordan & Snyder, 1901:862, fig. 12 (type locality: rock pool at Wakanoura, Wakayama Prefecture, Japan).

Voucher specimen: NTUM 1075 (Da-xi).

Remarks. A new record, collected in northeastern Taiwan.

+*Muraenichthys schultzei* Bleeker, 1857

許氏蟲鰐

Muraenichthys schultzei Bleeker, 1857d:366 (type locality: Java, Indonesia, eastern Indian Ocean).

Voucher specimens: USNM 314095, 314099, 314105 (Kenting, S. Taiwan).

Remarks. A new record, collected in southern Taiwan.

+*Muraenichthys thompsoni* Jordan & Richardson, 1908

湯氏蟲鰐

Muraenichthys thompsoni Jordan & Richardson, 1908:237, fig. 1 (type locality: Manila Bay, the Philippines).

Voucher specimen: NMMB-P 17508 (Dong-gang).

Remarks. A new record, collected in southwestern Taiwan.

****Muraenichthys velinasalis* Hibino & Kimura, 2015**

鼻瓣蟲鰐

Muraenichthys velinasalis Hibino & Kimura, 2015b:65, figs. 2b, 3f, 4, 5a, b, c (type locality: southwestern Taiwan).

Remarks. A widespread species in the western Pacific Ocean.

***Myrichthys colubrinus* (Boddaert, 1781)**

竹節花蛇鰐

Muraena colubrina Boddaert, 1781:56, pl. 2, fig. 3 (type locality: Ambon Island, Molucca Islands, Indonesia).

Myrichthys colubrinus (Boddaert, 1781): Chen & Weng, 1967:61; Chen, 1969:137; Shen 1984a:116; Chen & Yu, 1986:258; Shen et al., 1993:112; Shao et al., 2008:238; Ho et al., 2010:table 1.

Remarks. An uncommon species found over sandy bottoms or in sea grass beds near coral reef areas. It is a remarkable mimic of venomous hydrophine sea snakes (McCosker & Rosenblatt, 1993).

***Myrichthys maculosus* (Cuvier, 1816)**

巨斑花蛇鰐

Muraena maculosa Cuvier, 1816:232, fig. 29 (type locality: European Seas, probably Indonesia).

Myrichthys aki Tanaka, 1917: Chen & Yu, 1986:258; Shen et al., 1993:112.

Myrichthys maculosus (Cuvier, 1816): Chen & Yu, 1986:258; Shen et al., 1993:112; Shao et al., 2008:238; Ho et al., 2010:table 1.

Remarks. An uncommon species found in coral reef regions around Taiwan.

****Neenchelys cheni* (Chen & Weng, 1967)**

陳氏新鰐

Myrophis cheni Chen & Weng, 1967:39 (Type locality: Tungkang [Dong-gang], southwestern Taiwan). Chen, 1969:130; Shen 1984a:117; Chen & Yu, 1986:258; Shen et al., 1993:112; Shao et al., 2008:238.

"*Neenchelys*" *cheni* (Chen & Weng, 1967): Ho et al. 2010:24, table 1; Ho & Shao, 2011:23, table 1.

Neenchelys cheni (Chen & Weng, 1967): Hibino et al., 2012:345; Ho et al., 2013:5.

Neenchelys retropinna Smith & Böhlke, 1983: McCosker & Chen, 2000:356.

Remarks. An uncommon species collected by midwater trawls off southwestern Taiwan.

****Neenchelys diaphora* Ho, McCosker & Smith, 2015**

異新鰻

Neenchelys diaphora Ho, McCosker & Smith, 2013:8, fig. 4 (type locality: Dong-gang, southwestern Taiwan). [Name unavailable]

Neenchelys diaphora Ho, McCosker & Smith, 2015c:49. (type locality: Dong-gang, southwestern Taiwan).

Remarks. Originally published in Ho *et al.* (2013), but the name is not available because it failed to meet the amended Article 8.5 of the International Code of Zoological Nomenclature (ICZN, 2012). A paper re-naming the species is included in this volume.

****Neenchelys gracilis* Ho & Loh, 2015**

Neenchelys gracilis Ho & Loh, 2015:54, figs. 1A–B, 2A–B (Type locality: Dong-gang, SW Taiwan).

Remarks. A rare species that is only represented by the holotype.

****Neenchelys mccoskeri* Hibino, Ho & Kimura, 2012**

麥氏新鰻

Muraenichthys macropterus (not of Bleeker, 1857): Ho *et al.*, 2010:table 1.

Neenchelys mccoskeri Hibino, Ho & Kimura, 2012:343 (Type locality: Tungkang, southwestern Taiwan). Ho *et al.*, 2013:9.

Remarks. A deep-sea species commonly collected by bottom trawl off southwestern Taiwan.

***Neenchelys parvipectoralis* Chu, Wu & Jin, 1981**

微鰭新鰻

Neenchelys parvipectoralis Chu, Wu & Jin, 1981:24 (type locality: Pingtan Island, Fujian Province, China). Ho *et al.*, 2010:29, table 1; Ho *et al.*, 2013:11.

Remarks. A very common species in the South China Sea, including southwestern Taiwan and Vietnam.

****Neenchelys pelagica* Ho, McCosker & Smith, 2015**

大洋新鰻

Neenchelys pelagica Ho, McCosker & Smith, 2013: 14, fig. 8 (type locality: Tungkang, southwestern Taiwan). [Name unavailable]

Neenchelys pelagica Ho, McCosker & Smith 2015c:50. (type locality: Tungkang, southwestern Taiwan).

Remarks. Originally published in Ho *et al.* (2013), but the name is not available because it failed to meet the amended Article 8.5 of the International Code of Zoological Nomenclature (ICZN, 2012). A paper re-naming the species is included in this volume.

****Neenchelys similis* Ho, McCosker & Smith, 2015**

長身新鰻

Neenchelys deadalus (non McCosker, 1982). McCosker, 1982:65 (in part).

Neenchelys similis Ho, McCosker & Smith, 2013: 15, fig. 9 (Type locality: Tashi, northeastern Taiwan). [Name unavailable]

Neenchelys similis Ho, McCosker & Smith, 2015c:50. (Type locality: Tashi, northeastern Taiwan).

Remarks. Originally published in Ho *et al.* (2013), but the name was not available because it failed to meet the

amended Article 8.5 of the International Code of Zoological Nomenclature (ICZN, 2012). A paper re-naming the species is included in this volume. A rare species only represented by one specimen collected from northeastern Taiwan.

***Ophichthus altipennis* (Kaup, 1856)**

帆鰭蛇鰐

Microdonophis altipennis Kaup, 1856a:43 (type locality: Makassar, Sulawesi, Indonesia).

Pisoodonophis zophistius Jordan & Snyder, 1901: Chen et al., 2010:28.

Ophichthus altipennis (Kaup, 1856). McCosker & Ho, 2015:73.

Remarks. Chen et al. (2010) firstly provided underwater photographs identified as *Pisoodonophis zophistius*, which is a junior synonym of this species. McCosker & Randall (2002) discussed the nomenclatural confusion about this species and established the validity of *Ophichthus altipennis*. Two voucher specimens were found (NTUM 1793 and NTUM 50567) in the collection by YH.

****Ophichthus aphotistos* McCosker & Chen, 2000**

深海黑體蛇鰐

Ophichthus aphotistos McCosker & Chen, 2000:354, fig. 1 (type locality: Tung-Kong [Tongkang] Channel, southwestern Taiwan, 22°22'N, 120°19'E, 700–800 m). Shao et al., 2008:238; Ho & Shao, 2011:23, table 1; McCosker & Ho, 2015:72.

Remarks. A rare species represented only by the type series and one additional specimen (ASIZP 64278), collected in northeastern Taiwan.

***Ophichthus apicalis* (Bennett, 1830)**

頂蛇鰐

Ophisurus apicalis Bennett, 1830:692 (type locality: Sumatra, Indonesia).

Ophichthus apicalis (Bennett, 1830): ?Shen et al., 1993:113; ?Shao et al., 2008:238; ?Ho et al., 2010:table 1; ?Chiu et al. 2013:206; McCosker & Ho, 2015:73.

Ophichthys apicalis (Bennett, 1830): ?Chen & Weng, 1967:72; ?Chen, 1969:137; ?Shen 1984a:118; ?Chen & Yu, 1986:259.

Remarks. This name has been applied to more than one species. Several recently described species, including *O. machidai*, *O. obtusus* and *O. shaoi* from Taiwan have all previously been misidentified as this species. As the type was lost, no details are available for this species. Chiu et al. (2013) recognized this species but without providing any voucher for it. McCosker & Ho (2015) recognized three specimens as the present species.

***Ophichthus asakusae* Jordan & Snyder, 1901**

淺草氏蛇鰐

Ophichthus asakusae Jordan & Snyder, 1901:872, fig. 18 (Type locality Bay of Tokyo, near Misaki, Japan). Chiu et al., 2013:206; McCosker & Ho, 2015:73.

Remarks. Chiu et al. (2013) included this species in their key but did not provide a voucher. It has only been collected from a few localities in Taiwan; most specimens collected from shallow water off Ke-tzu-liao, southwestern Taiwan.

****Ophichthus bicolor* McCosker & Ho, 2015**

雙色蛇鰐

Ophichthus bicolor McCosker & Ho, 2015:76, figs. 4–6 (type locality: Dong-gang, southwestern Taiwan).

Remarks. A deepwater species occasionally collected from southeastern Taiwan by hook and line and southwestern Taiwan by bottom trawl.

***Ophichthus bonaparti* (Kaup, 1856)**

鮑氏蛇鰻

Poecilocephalus bonaparti Kaup, 1856a:43 (type locality: Ambon Island, Molucca Islands, Indonesia).
Ophichthus bonaparti (Kaup, 1856): Chen, 1993:20; Chen, 2004:30; McCosker & Ho, 2015:72.

Remarks. Occasionally photographed by SCUBA divers in southern Taiwan. Chen (1993, 2004) recorded this species from the Penghu Islands.

***Ophichthus cephalozona* (Bleeker, 1864)**

頸斑蛇鰻

Ophichthus cephalozona Bleeker, 1864c:49, pl. 156, fig. 2 (type locality: Singapore; Ambon Island, Molucca Islands, Indonesia). ?Shen, 1988:15; ?Shen et al., 1993:113; Chen, 2004:30; McCosker & Ho, 2015:72.
Ophichthys cephalozona (Bleeker, 1864c): ?Jordan & Evermann, 1902:326; ?Matsubara, 1955:349; ?Chen, 1956:76; ?Chen & Weng, 1967:69; ?Chen, 1969:137; ?Shen 1984a:117; ?Chen & Yu, 1986:259.

Remarks. Although most records have been determined to be misidentifications of *O. lithinus*, an underwater photograph examined by one of us (JMc) confirms the presence of this species in Taiwan.

***Ophichthus erabo* (Jordan & Snyder, 1901)**

斑紋蛇鰻

Microdonophis erabo Jordan & Snyder, 1901:870, fig. 17 (type locality: Misaki, Japan). Chen & Weng, 1967:67; Chen, 1969:137; Chen & Yu, 1986:259; Shen et al., 1993:111.
Ophichthus erabo (Jordan & Snyder, 1901): Shen, 1988:15; ?Chen, 2004:30; Shao et al., 2008:238; Chiu et al., 2013:206; McCosker & Ho, 2015:72.
Ophichthys erabo (Jordan & Snyder, 1901): Shen 1984a:117.

Remarks. A common species collected by bottom trawl off northeastern and southwestern Taiwan; more abundant in southwestern Taiwan.

***Ophichthus fasciatus* (Chu, Wu & Jin, 1981)**

條紋蛇鰻

Microdonophis fasciatus Chu, Wu & Jin, 1981:21 (type locality: Pingtan Island, Fujian Province, China). Chen, 1993:19; Chen, 2004:30.

Ophichthus fasciatus (Chu, et al., 1981): McCosker & Ho, 2015:72.

Remarks. First recorded by Chen (1993) from Penghu. The voucher has not been examined and might have been lost.

***Ophichthus lithinus* (Jordan & Richardson, 1908)**

艾氏蛇鰻

Leiuranus lithinus Jordan & Richardson, 1908:238, fig. 3 (type locality: Cuyo, Philippines)

Ophichthus lithinus (Jordan & Richardson, 1908): Ho et al., 2010:table 1; Ho & Shao, 2011:23, table 1; McCosker & Ho, 2015:72.

Ophichthus evermanni Jordan & Richardson, 1909:172 (Type locality: Takao [Kaohsiung], Taiwan). Jordan et al., 1913:87; Chen, 1956:76; Chen & Weng, 1967:70; Chen, 1969:137; Shen 1984a:117; Chen & Yu, 1986:259; Shen et al., 1993:113; Shao et al., 1994a:276; Chen, 2004:30.

Ophichthys cephalozona (not of Bleeker, 1864c): Jordan & Evermann, 1902:326.

Remarks. A common species collected from shallow waters around Taiwan, especially in the southwest.

***Ophichthus machidai* McCosker, Ide & Endo 2012**

町田氏蛇鰐

Ophichthus machidai McCosker, Ide & Endo 2012:8, figs. 4–6 (type locality: Tosa Bay, Saga fish market (33°04.48'N, 133°06.80'E), Kuroshio-chu, Kochi Prefecture, Japan). Chiu *et al.*, 2013:204; McCosker & Ho, 2015:73.

Remarks. Previous records of *O. apicalis* may include misidentification of this species. It is common in bycatch of bottom trawls.

***Ophichthus macrochir* (Bleeker, 1853)**

大鰭蛇鰐

Ophisurus macrochir Bleeker, 1853a:26 (type locality: Jakarta, Java, Indonesia).

Ophichthus macrochir (Bleeker, 1853a): Shen *et al.*, 1993:113; Shao *et al.*, 2008:238; Chen, 2004:30; Ho *et al.*, 2010:19, table 1; McCosker & Ho, 2015:72.

Ophichthys macrochir (Bleeker, 1853a): Chen & Weng, 1967:73; Chen, 1969:137; Shen 1984a:118; Chen & Yu, 1986:259.

Remarks. Most specimens examined have 207–218 total vertebrae. However, one specimen with 186 total vertebrae is possibly a different species or has a damaged tail.

+*Ophichthus megalops* Asano, 1987

大眼蛇鰐

Ophichthus megalops Asano, 1987:135, figs. 1–2 (type locality: Owase, Mie Prefecture, Japan, ca. 360 m). ?Ho *et al.*, 2010:table 1; McCosker & Ho, 2015:72.

Voucher specimens: NMMB-P12006, 12193 (Nan-fang-ao); NMMB-P17751 (Daxi).

Remarks. New record for Taiwan. Although Ho *et al.* (2010) identified a specimen as this species, that specimen is now recognized as an unidentified species. The specimens on which this record is based were collected in northeastern Taiwan.

***Ophichthus obtusus* McCosker, Ide & Endo, 2012**

壯體蛇鰐

Ophichthus obtusus McCosker, Ide & Endo 2012:12, figs. 7–9 (type locality: Tosa Bay, Irino fish market, Kuroshio-cho, Kochi Prefecture, Japan). Chiu *et al.*, 2013:204; McCosker & Ho, 2015:73.

Remarks. A common species collected by bottom trawl around Taiwan.

***Ophichthus polyophthalmus* (Bleeker, 1864)**

眼斑蛇鰐

Ophichthys polyophthalmus Bleeker, 1864b:43 (type locality: Amboin Island, Molucca Islands, Indonesia). Shen 1984a:117.

Ophichthus polyophthalmus (Bleeker, 1864b): Chen, 2004:31; McCosker & Ho, 2015:72.

Microdonophis polyophthalmus (Bleeker, 1864b): Okada, 1938:152; Chen, 1956:76; Chen & Weng, 1967:67; Chen, 1969:137; Chen & Yu, 1986:259; Shen *et al.*, 1993:112.

Remarks. Although recorded by many authors, there is only one specimen present in FRIP with confirmed identification.

****Ophichthus shaoi* McCosker & Ho, 2015**

邵氏蛇鰐

Ophichthus shaoi McCosker & Ho, 2015:80. figs. 7–9 (type locality: Da-xi, Yilan, northeastern Taiwan).

Remarks. A species occasionally collected by bottom trawl in northeastern and southwestern Taiwan.

***Ophichthus urolophus* (Temminck & Schlegel, 1846)**

裙鰭蛇鰐

Conger urolophus Temminck & Schlegel, 1846:260, pl. 114 (type locality: Nagasaki, Japan).

Ophichthus tsuchidae (Jordan & Snyder, 1901): Shen et al., 1993:114.

Ophichthus urolophus (Temminck & Schlegel, 1846): Shen et al., 1993:114; Shao et al., 2008:238; Ho et al., 2010:table 1; Chiu et al., 2013:206; McCosker & Ho, 2015:73.

Ophichthys urolophus (Temminck & Schlegel, 1846): Chen & Weng, 1967:71; Chen, 1969:137; Shen 1984a:117; Chen & Yu, 1986:259.

Ophichthys tsuchidai (Jordan & Snyder, 1901): Chen & Yu, 1986:259; Shao et al., 2008:238; Chiu et al., 2013:206.

Microdonophis intermedius (Regan, 1905): Liang, 1951:11; Chen, 1956:76.

Remarks. This is a very common species collected by bottom trawl from shallow to deep waters around Taiwan. In our examination of numerous specimens, we noted that the number of tooth rows changes with growth. There is usually a single row of teeth on both maxilla and dentary in specimens less than 300 mm TL, becoming biserial in specimens larger than 300 mm TL and triserial in specimens larger than 600 mm TL. Several authors have recognized *O. tsuchidae* from Taiwan, which is a junior synonym of *O. urolophus*.

+*Ophisurus macrorhynchos* Bleeker, 1853

巨吻沙蛇鰐

Ophisurus macrorhynchos Bleeker, 1853a:28 (type locality: near Kaminoseki Island, Yamaguchi Prefecture, Japan).

Voucher specimens: ASIZP 62582, 64629 (Da-xi)

Remarks. A new record for Taiwan; a rare species occasionally collected in deep water by bottom trawl off northeastern Taiwan. The largest individual is more than 2 meters long (Ho, pers. obser.).

***Phyllophichthus xenodontus* Gosline, 1951**

葉鼻鰐

Phyllophichthus xenodontus Gosline, 1951:316 (type locality: Hauula Park, Oahu Island, Hawaiian Islands): Ho et al., 2010:30, table 1.

Remarks. The species was recorded by Ho et al. (2010) from two specimens collected from southwestern Taiwan. There is also a specimen (USNM 314694) collected in 1968. It is a rare species that is not commonly seen in Taiwan.

***Pisodonophis boro* (Hamilton, 1822)**

波路荳齒蛇鰐

Ophisurus boro Hamilton, 1822:20 (type locality: Ganges estuary near Calcutta, India).

Pisodonophis boro (Hamilton, 1822): Chen, 1956:76; Chen & Weng, 1967:63; Chen, 1969:137; Shen 1984a:117; Chen & Yu, 1986:259; Shen et al., 1993:114; Shao et al., 2008:238; Ho et al., 2010:table 1.

Remarks. A common species found in the bycatch of bottom trawls off southwestern Taiwan, but it is less abundant than *P. cancrivorus*.

***Pisodonophis cancrivorus* (Richardson, 1848)**

食蟹壹齒蛇鰻

Ophisurus cancrivorus Richardson, 1848b:97 (type locality: Port Essington, Northern Territory, Australia).

Pisodonophis cancrivorus (Richardson, 1848): Jordan & Evermann, 1902:326; Jordan & Richardson, 1909:172; Chen, 1956:76; Chen & Weng, 1967:65; Lee, 1967:44; Chen, 1969:137; Shen 1984a:116; Chen & Yu, 1986:258; Shen, 1988:15; Shen et al., 1993:114; Chen & Fang, 1999:54; Shao et al., 2008:238; Chen, 2004:31; Ho et al., 2010:table 1.

Remarks. A very common and abundant species found in shallow waters around Taiwan, especially over mud bottoms.

****Pylorobranchus* McCosker & Chen, 2012**

守鰓鰻屬

Pylorobranchus McCosker & Chen in McCosker et al., 2012:1189 (Type species: *Pylorobranchus hoi*, by monotypy). McCosker, 2014:334

****Pylorobranchus hoi* McCosker, Loh & Lin, 2012**

何氏守鰓鰻

Pylorobranchus hoi McCosker, Loh & Lin in McCosker et al., 2012:1192, figs. 1–4 (type locality: Changbin, 23°18'N, 121°29'E, Taitung County, Taiwan, 300 m). McCosker, 2014:337.

Remarks. A deepwater species known only from the type series collected by hook and line off southeastern Taiwan.

+*Schultzidium johnstonensis* (Schultz & Woods, 1949)

舒氏鰻

Muraenichthys johnstonensis Schultz & Woods, 1949:172, fig. 1 (type locality: Johnston Island [Central Pacific]).

Voucher specimen: NTUM 10694 (Kin-men, Taiwan Strait).

Remarks. This is a new record for Taiwan, and is represented by a single specimen collected at Kin-men, western Taiwan Strait.

+*Scolecenchelys fuscovenensis* McCosker, Ide & Endo, 2012

黑尾蟲鰻

Scolecenchelys fuscovenensis McCosker, Ide & Endo, 2012:2, figs. 1–3 (type locality: Tosa Bay, 33°14.70'N, 133°38.42'E - 33°13.01'N, 133°36.55'E, Japan, 223–269 m).

Voucher specimens: ASIZP 53979, NMMB-P 12004 (Dong-gang).

Remarks. This is a new record for Taiwan. Both vouchers were collected by bottom trawl off southwestern Taiwan.

+*Scolecenchelys iredalei* (Whitley, 1927)

愛氏蟲鰻

Muraenichthys iredalei Whitley, 1927:5, fig. 1 (type locality: Michaelmas Cay, Great Barrier Reef, off Cairns, Queensland, Australia). Hibino and Kimura, 2015a:unnumbered.

Voucher specimen: USNM 427603 (Pingtung).

Remarks. This is a new record for Taiwan. Although McCosker et al. (2006) treated this as a junior synonym of *S. australis*, Hibino & Kimura (2015a) recognized it as a distinct species. The voucher was collected from a shallow coral reef of southern Taiwan.

+*Scolecenchelys laticaudata* (Ogilby, 1897)

側尾蟲鰻

Myropterura laticaudata Ogilby, 1897:247 (type locality: Fiji Islands [South Pacific]).

Scolecenchelys gymnota (non Bleeker, 1854): Shao *et al.*, 2008:239.

Scolecenchelys laticaudata (Ogilby, 1897): Hibino & Kimura, 2015a:unnumbered.

Voucher specimens: ASIZP 55133 (Hengchun, Pingtung); USNM 313981 (Kenting, Pingtung).

Remarks. This is a new record for Taiwan. Specimens previously referred to *Scolecenchelys gymnota* (ASZIP 55133) are identified as this species (Hibino & Kimura, 2015a). The USNM specimen was collected from a shallow coral reef in southern Taiwan.

+*Scolecenchelys macroptera* (Bleeker, 1857)

大鰭蟲鰻

Muraenichthys macropterus Bleeker, 1857a:91 (type locality: Ambon Island, Molucca Islands, Indonesia).

Voucher specimen: USNM 314037 (Hengchun, Pingtung).

Remarks. This is a new record for Taiwan. The voucher specimen was collected from a tide pool in southern Taiwan.

Skythrenchelys zebra Castle & McCosker, 1999

龜蛇鰻

Skythrenchelys zebra Castle & McCosker, 1999:116, figs. 1A–C, 2A (type locality: Thevara, Ernakulam, southern India, 10°00'N, 76°16'E, shallow turbid water). Chiu *et al.*, 2013:202.

Remarks. A rare species represented by only a few specimens collected from southwestern Taiwan by bottom trawl. Other specimens collected from China and Vietnam were examined by HH.

**Sympenchelys* Hibino, Ho & Kimura, 2015

扁鰻屬

Sympenchelys Hibino, Ho & Kimura, 2015:42. (type species: *Sympenchelys taiwanensis* Hibino, Ho & Kimura, by monotypy).

**Sympenchelys taiwanensis* Hibino, Ho & Kimura, 2015

台灣扁鰻

Sympenchelys taiwanensis Hibino, Ho & Kimura: 2015:44. figs. 1–6 (type locality: Dong-gang, southwestern Taiwan, South China Sea, ca. 200 m).

Remarks. A rare and small species occasionally collected by bottom trawl off southwestern Taiwan.

**Xyrias chioui* McCosker, Chen & Chen, 2009

邱氏列齒鰻

Xyrias chioui McCosker, Chen & Chen, 2009:63 (type locality: Changbin, 23°17'N, 121°27'E, Taitung County, Taiwan, 60–70 m). Ho & Shao, 2011:23, table 1.

Remarks. A rare species known only from the holotype collected by hook and line off southeastern Taiwan.

+*Xyrias revulsus* Jordan & Snyder, 1901

列齒鰻

Xyrias revulsus Jordan & Snyder, 1901:869, fig. 16 (Type locality: Misaki, Japan).

Voucher specimens: ASIZP 70172 (Da-xi); NMMB-P16531, 16532 (Dong-gang).

Remarks. Although Tan (1983) recorded this species from Diao-yu Island, specimens of this species were recently collected and represent the first confirmed record from Taiwan. It is a relatively deepwater species collected by bottom trawl off northeastern and southwestern Taiwan.

+*Yirrkala misolensis* (Günther, 1872)

米蘇爾細鋤蛇鰻

Ophichthys misolensis Günther, 1872b:426 (type locality: Misol Island, Irian Jaya, Indonesia).

Voucher specimens: NMMB-P 12003 (Dong-gang); NMMB-P 17506 (Dong-gang).

Remarks. This is a new record for Taiwan; represented by only a few specimens collected by bottom trawl in southwestern Taiwan. It is very common in Vietnam, e.g. Nha Trang and Mui Ne, collected from depths less than 100 meters, based on HH's observation.

Family Serrivomeridae

鋸犁鰻科

***Serrivomer sector* Garman, 1899**

長齒鋸犁鰻

Serrivomer sector Garman, 1899:320, pl. 63 (type locality: Eastern Pacific, 3°–7°N, 79°–86°W, 0–1772 fathoms [0–3240 m]).
Shao et al., 2008:239.

Remarks. This rare species is represented by only one specimen collected from Taiwan.

Family Synaphobranchidae

合鰓鰻科

***Dysomma anguillare* Barnard, 1923**

前肛鰻

Dysomma anguillaris Barnard, 1923:443 (type locality: KwaZulu-Natal, South Africa, southwestern Indian Ocean, 63 fathoms [115 m]). Chen & Weng, 1967:83; Chen, 1969:138; Shen 1984a:110; Chen & Yu, 1986:260; Shen et al., 1993:109.
Dysomma anguillare Barnard, 1923: Chen & Mok, 2001:79; Shao et al., 2008:238; Ho et al., 2010:table 1; Ho et al., 2015d:91.
?*Dysomma angustum*: Chen, 1956:73.

Remarks. A very common species collected by bottom trawl and midwater trawl around Taiwan. It is far more abundant than all other congeners in Taiwan.

***Dysomma dolichosomatum* Karrer, 1983**

長身前肛鰻

Dysomma dolichosomatum Karrer, 1983:93, figs. 28 A–B (type locality: Madagascar, 22°25'S, 43°04.5'E, 550–555 m). Shen et al., 1993:109; Chen & Mok, 2001:79; Shao et al., 2008:238; Ho et al., 2015d:93.

Remarks. A common species collected by midwater trawl off northeastern and southwestern Taiwan. It usually feeds on midwater shrimps.

***Dysomma goslinei* Robins & Robins, 1976**

高氏前肛鰻

Dysomma goslinei Robins & Robins, 1976:261, figs. 3, 6, 7c, 8 (type locality: Indian Ocean, 14°52'N, 96°39'E). Shen et al., 1993:109; Chen & Mok, 2001:79; Ho et al., 2015d:94.

Remarks. A rare species represented by several specimens in Taiwan.

****Dysomma longirostrum* Chen & Mok, 2001**

長吻前肛鰻

Dysomma longirostrum Chen & Mok, 2001:79, figs. 1A, 2 (type locality: Nanfangao fish market, northeastern Taiwan, 100–150 m). Shao *et al.*, 2008:238; Ho & Shao, 2011:22, table 1; Ho *et al.*, 2015d:95.

Remarks. A rare species represented by several specimens in collections worldwide. In Taiwan it is represented only by the holotype.

****Dysomma melanurum* Chen & Weng, 1967**

黑尾前肛鰻

Dysomma melanurum Chen & Weng, 1967:84, fig. 63 (type locality: Tungkong [Dong-gang], southwestern Taiwan). Chen, 1969:138; Shen, 1984a:110; Robins & Robins in Böhlke, 1989:249; Shen *et al.*, 1993:109; Smith, 1999a:1661; Chen & Mok, 2001:79; Shao *et al.*, 2008:238; Ho *et al.*, 2010:26, table 1; Ho & Shao, 2011:22, table 1; Ho *et al.*, 2015d:96.

Remarks. This species is occasionally collected by midwater trawl from southwestern Taiwan; feeds on midwater shrimps.

****Dysomma opisthoproctus* Chen & Mok, 1995**

後臀前肛鰻

Dysomma opisthoproctus Chen & Mok, 1995:927, fig. 1 (type locality: off the coast of Nan-Fang-Ao, northeastern Taiwan, 200 m). Smith, 1999a:1661; Chen & Mok, 2001:79; Shao *et al.*, 2008:238; Ho & Shao, 2011:22, table 1; Ho *et al.*, 2015d:98.

Remarks. A rare species, to date known only from the holotype.

***Dysomma polycatodon* Karrer, 1983**

多齒前肛鰻

Dysomma polycatodon Karrer, 1983:89, figs. 27 A–B (type locality: Madagascar, 15°21'S, 46°11'E, 170–175 m). Chen & Mok, 2001:79; Ho *et al.*, 2015d:99.

Remarks. A common species collected by bottom trawl from northeastern and southwestern Taiwan, but not as abundant as *D. anguillare*.

****Dysomma taiwanensis* Ho, Smith & Tighe, 2015**

台灣前肛鰻

Dysomma taiwanensis Ho, Smith & Tighe, 2015d:87, figs. 1A–B, 2A–B (type locality: Daxi, Yilan, northeastern Taiwan).

Remarks. A rare deepwater species represented only by the type series collected by bottom trawl off southeastern Taiwan.

***Dysommina rugosa* Ginsburg, 1951**

多皺短身前肛鰻

Dysommina rugosa Ginsburg, 1951:450, fig. 6 (type locality: off Cumberland Island, Georgia, U.S.A., western North Atlantic, 30°53'00"N, 79°42'30"W, 273 fathoms [499 m]). Chen & Mok, 2001:79; Shao *et al.*, 2008:238; Ho *et al.*, 2015d:100.

Remarks. A rare species occasionally collected by bottom trawl from northeastern and southwestern Taiwan.

+*Histiobranchus bathybius* (Günther, 1877)

深海旗鰓鰻

Synaphobranchus bathybius Günther, 1877:445 (type locality: south of Tokyo, Japan and South Atlantic between Cape of Good Hope and Kerguelen Island).

Voucher specimen: ASIZP 66208 (Suao, Yilan, northeastern Tawian).

Remarks. This is a new record for Taiwan, and it is only represented by a single specimen collected from northeastern Taiwan at 2204–2334 m.

***Ilyophis brunneus* Gilbert, 1891**

褐泥鰻

Ilyophis brunneus Gilbert, 1891:352 (type locality: San Cristóbal Island [Chatham Island], Galápagos Islands, 0°36'30"S, 89°19'00"W, 634 fathoms [1159 m]). Chen & Mok, 2001:79; Shao *et al.*, 2008:238.

Remarks. A rare species represented only by a few specimens collected by bottom trawl off northeastern Tawian.

***Meadia abyssalis* (Kamohara, 1938)**

箭齒前肛鰻

Dysomma abyssale Kamohara, 1938:12, fig. 3 (type locality: Sagami Sea, Japan).

Meadia abyssalis (Kamohara, 1938): Chen & Mok, 2001:79; Shao *et al.*, 2008:238.

Remarks. A deepwater species commonly collected by hook and line from eastern Taiwan and occasionally collected by bottom trawl off northeastern and southwestern Taiwan.

****Meadia roseni* Mok, Lee & Chen, 1991**

羅氏箭齒前肛鰻

Meadia roseni Mok, Lee & Chan, 1991:39, figs. 1–3 (type locality: 22°21'05"N, 120°12'46"E. [off southwestern Taiwan], 1020 m). Shen *et al.*, 1993:109; Smith, 1999a:1661; Chen & Mok, 2001:79; Shao *et al.*, 2008:238; Ho & Shao, 2011:22, table 1.

Remarks. A species commonly collected from deep waters by bottom trawl off southwestern Taiwan.

***Simenchelys parasitica* Gill, 1879**

寄生鰻

Simenchelys parasiticus Gill in Goode & Bean, 1879:27 (type locality: Banquereau, Canada). Shen *et al.*, 1993:110; Chen & Mok, 2001:79.

Remarks. A rare species only represented by several specimens collected from deep waters by bottom trawl off northeastern Taiwan.

***Synaphobranchus affinis* Günther, 1877**

合鰓鰻

Synaphobranchus affinis Günther, 1877:445 (type locality: Japan). Shen *et al.*, 1993:110; Chen & Mok, 2001:79; Shao *et al.*, 2008:238.

Remarks. There are many specimens deposited in the ASIZP collection. However, there are taxonomic problems remaining, and this group needs further study.

***Synaphobranchus brevidorsalis* Günther, 1887**

短背鰭合鰓鰻

Synaphobranchus brevidorsalis Günther, 1887:255 (type locality: North of New Guinea and Japan). Shao *et al.*, 2008:238.

Remarks. There are several specimens of this species in the ASIZP collection, most of them collected from the South China Sea off Taiwan.

***Synaphobranchus kaupii* Johnson, 1862**

高氏合鰓鰻

Synaphobranchus kaupii Johnson, 1862:169 (type locality: off Madeira, eastern Atlantic). Chen & Mok, 2001:79; Shao *et al.*, 2008:238.

Remarks. Although there are many specimens found in the collection, taxonomic problems remain, and this group needs further study.

Order Saccopharyngiformes

寬咽鰻目

+Family Eurypharyngidae

寬咽鰻科

+*Eurypharynx pelecanoides* Vaillant, 1882

寬咽鰻

Eurypharynx pelecanoides Vaillant, 1882:1226 (type locality: off Morocco, 2300 m).

Voucher specimens: ASIZP 60920, 62122, 62597 (Daxi).

Remarks. This is a new record in Taiwan, also a rare species occasionally collected by the bottom trawl in Taiwan.

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